

E-POSTER ABSTRACTS

EP01 E-poster session 1 Fetal Medicine

EP01.01 The narrowed beam width in newer ultrasound machines affect femur length (FL) measurements

Inger Økland (1)

(1)Stavanger University Hospital, Dep of Obstetrics and Gynecology, Norway

Objectives: Fetal ultrasound measurements are made in the axial, lateral and crosswise direction. The lateral resolution is influenced by beam width. Efforts to narrow the beam width have improved lateral resolution and image quality; consequently measurements of length in the lateral plane (CRL, FL) are affected and made shorter, approaching the true length. An aim of this study was to demonstrate the effect of beam width changes over time by comparing measurements from old and new machines. Additionally, we evaluated possible time-dependent changes in FL-measurements in our clinical database. Methods: With each of 3 old ultrasound machines from the 1990's and 3 newer machines from 2007, we performed 25 series of blinded beam width measurements on a tissue-mimicking phantom, measuring at depths 3-8 cm with a 5 MHz transducer. A clinical database comprising 51282 fetal measurements was used to evaluate the FL, with time as a covariate. Results: Overall, the beam width was 1.08 mm narrower with the new machines than with the old machines (CI 1.02, 1.13). The beam width increased with increasing depths. Regression analysis showed that time is a significant covariate; at the same gestational age, FL was measured 0.95 mm shorter (CI 0.86, 1.04) in the last time period (1999–2004) than in the first (1988–92). For the same BPD, FL was measured 0.81 mm shorter. Conclusion: Technical improvements reducing beam width in ultrasound machines affect certain ultrasound measurements. This has clinical implications, e.g. for pregnancy dating and growth assessment. Old curves need updating.

EP01.02 The performance of conventional chromosome analysis of stillbirths and late fetal losses - results on 797 cultured tissue samples and a comparison with the literature

Gitte Bennich (1,2), JMD Hahnemann (2)

(1)Roskilde University Hospital, Denmark

(2)Kennedy Center, Glostrup, Denmark

Objective: Our aim was to evaluate the results and success rates in our laboratory, of conventional cytogenetics after 2nd and 3rd trimester intrauterine fetal death (IUFD), and obtain an overview of the literature data, as a basis for optimising this genetics service. Method: We reviewed our laboratory records retrospectively on IUFD tissue samples obtained post-termination ≥ 14 weeks of gestation, received for karyotyping during 1999-2006. Success rates and incidence of unbalanced karyotypes were compared to data from the literature on IUFD samples obtained either post- or pre-termination. Results: We received 797 tissue samples from 394 conceptuses (an average of 2.0 samples per conceptus). Mean gestational age was 24.4 weeks. 72% of conceptuses were successfully karyotyped, increasing from 70% to 79% during the period. Growth success rates were 33%, 40%, and 88% for achilles tendon, skin and placental biopsies respectively. We estimated a risk in cultured placental samples of overgrowth by maternal cells of about 9%. Chromosomal imbalance was found in 4.2% (95% C.I.: 1.9-6.5%) of karyotyped conceptuses. Conclusion: The frequency of unbalanced karyotypes was comparable to most other published 2nd and 3rd trimester IUFD series. Karyotype and growth success rates were satisfactory compared to other data series, however maternal cell contamination (MCC) was a significant problem. It would be relevant to evaluate the impact of a replacement of conventional karyotyping by molecular techniques on success rates, diagnostic yield, risk of MCC, and work load, in IUFD cytogenetic diagnostics.

EP01.03 Benefits of prophylaxis and monitoring versus the current common practice in amniocentesis

D Iliescu (1), S Tudorache (1), Adrian Martin (1), A Comanescu (1), R Capitanescu (1), M-M Manolea (1), N Cernea (1), L Novac (1)

(1)University of Medicine and Pharmacy, Universitary Emergency Hospital Craiova, Romania

OBJECTIVE: The aim of the study is to compare the fetal loss rate <4 weeks (FLR) and the preterm premature rupture of the membranes (PPRM) <34 weeks' gestation according to the technique of invasive procedure and associated medication. **METHODS:** The study group consisted in 295 singleton pregnancies, which underwent amniocentesis in 2008/2009 at 16-19 weeks for abnormal genetic screening and/or structural anomalies; with a 0.7% lost-to-follow-up rate. The protocol included hospitalization with complete fetal/cervical/placental evaluation, prophylactic antibiotherapy previously started; amniocentesis in the following morning under beta-mimetic prophylactic doses maintained for 24 hours after the procedure. The second day the patient was released, after evaluation of fetal wellbeing, amniotic fluid, placental aspect and cervix length, with recommendation of completion antibiotherapy to four days and various tocolysis, depending the cervix length, at the discretion of attending physician (progesterone/indomethacin/nifedipin). In the control group amniocentesis was not accompanied by hospitalization, tocolysis and 24 hours monitoring. The same two physicians performed amniocentesis in both groups. **RESULTS:** FLR as well as miscarriage or intrauterine demise before 24 weeks of gestation was 0% in the study group compared to 1.6% in the control group regardless to sampling technique, number of punctures. PPRM rate showed no significant differences compared to the pregnancies without invasive tests. **CONCLUSION:** Preliminary results suggest improvement of prognostic if prophylactic antibiotherapy and tocolysis is associated to invasive testing, during hospitalization and 24 hours monitoring. A risk-benefit analysis based on a large database is needed to confirm our findings.

EP01.04 Ultrasound detection of spina bifida in conjunction with first-trimester genetic ultrasonogram

D Iliescu (1), S Tudorache (1), Adrian Martin (1), A Comanescu (1), R Capitanescu (1), M-M Manolea (1), N Cernea (1), L Novac (1)

(1)University of Medicine and Pharmacy, Universitary Emergency Hospital Craiova, Romania

OBJECTIVE: The aim of the study was to determine retrospectively the effectiveness of recently described markers of fetal neurosonogram, in detection of the displacement of the brain in fetuses with spina bifida, during the first trimester of pregnancy. **METHODS:** We retrospectively assessed the 2D and/or 3D dates from the pregnancies undergoing routine ultrasound examination at 11-13 weeks' gestation during 2009, as part of screening for chromosomal abnormalities. Our targets of evaluation consisted in: spine aspect, cranium and intracranial anatomy of choroids plexus, thalamic angle, cerebellum aspect and antero-posterior measurement of the fourth ventricle in the mid-sagittal view of the fetal face, recently described (2009) as intracranial translucency (IT). **RESULTS:** All the 1149 fetuses without NTD presented measurable IT with median values at 11-13+6 weeks between 1.2 and 2.7 mm. From the cases diagnosed with open spina bifida, 2 underwent 11-13+6 scan in our clinic and both cases presented abnormal early neurosonogram: in one case we found abnormalities in cranium shape, choroids plexus, IT and aspect of the cerebellum; in the second case the only detectable sign was IT not detectable/measurable. Both of them resulted in sacral spina bifida and none presented abnormalities in the first trimester spine evaluation. **CONCLUSION:** The mid-sagittal view of the face as routinely used in screening for chromosomal defects could offer an important diagnostic marker for the detection of CNS anomalies in the very early pregnancy.

EP01.05 Knowledge of prenatal screening and psychological management of test decisions

Katja Dahl (1), L Hvidman (2), FS Joergensen (3), US Kesmodel (2)

(1)Aarhus University, Institute of Public Health, Department of Epidemiology, Denmark

(2)Aarhus University Hospital, Skejby, Department of Obstetrics and Gynaecology, Denmark

(3)Hvidovre University Hospital, Fetal Medicine Unit, Department of Obstetrics and Gynaecology, Denmark

The objectives were to study associations between pregnant women's knowledge of prenatal screening and decisional conflict in deciding whether to participate in first trimester screening for Down's syndrome in a setting of required informed consent and to study associations between knowledge and personal well-being respectively worries in pregnancy. Methods: A population-based cross-sectional study including three Danish obstetric departments offering prenatal screening free of charge to all pregnant women. The results are based on 4,111 pregnant women (64%) consecutively included from September 2007 to March 2008 in the first trimester of pregnancy before the time of a nuchal translucency scan. Results: An increased level of knowledge was associated with less decisional conflict when deciding whether to participate in first trimester Down's syndrome screening with adjusted odds ratios increasing from 1.3 (0.8 to 2.2) in the lowest knowledge score group to 6.3 (3.4 to 11.6) in the highest knowledge score group. An increased level of knowledge was also associated with higher levels of well-being (mean well-being 52.2 and 62.9 in the lowest respectively highest knowledge score group ($p < 0.0001$)) also after adjustment for other predefined variables potentially associated with well-being ($p < 0.001$). Knowledge was not statistically significantly associated with worries, neither in general nor specifically with worries about something being wrong with the baby (p -values 0.747 – 0.421). Conclusion: An increased level of knowledge was associated with less decisional conflict and higher levels of well-being but not with worries in pregnancy, especially not worries about something being wrong with baby.

EP01.06 Prenatal diagnosis of kidney/urinary tract anomalies in a population

Borbjörn Hava Jónsson (1), H Hjartardóttir (2), VÖ Eðvarðsson (2)

(1)Landspítali University Hospital / University of Iceland, Iceland

(2)Landspítali University Hospital, Iceland

Objectives: Congenital anomalies of the kidney and urinary tract (CAKUT) account for 20-30% of all malformations. The incidence and prognosis of antenatally diagnosed CAKUT was assessed. Methods: Data were collected from the prenatal diagnosis unit on-line records at Landspítali University Hospital for 2004-2008. The unit serves the whole population. Maternal/fetal records were scrutinized to confirm the diagnosis and the imaging studies, medical/surgical interventions and mortality recorded. Results: A total of 109 cases were diagnosed of whom 4 were lost to follow-up ($n=105$). Of these 59 (57%) were diagnosed at 20 weeks routine ultrasound examination. Sixteen (15%) resulted in abortion, termination or spontaneous, there were 88 (85%) births (2 stillbirths). Of live born children, three have died. The majority had anomalies of the collecting system (77/103), followed by parenchymal defects (25/103). Postnatal diagnoses varied: 14/102 children were healthy (overdiagnosis), while 7/102 had medical conditions unrelated to CAKUT. Kidney or urinary tract surgery was done in 16% of cases (average 3.9 operations/child), 22 children required prophylactic antibiotics, hypertensive or renal function medication. In addition to postnatal ultrasound, other imaging studies were required for 53 children, mostly MUCG (51). Discussion: The data provide information on the incidence, type and outcome of CAKUT in a complete population. An ultrasound scan at 20 weeks is the most effective antenatal diagnostic test. There was a 10-15% overdiagnosis rate while in 7% CAKUT was indicative of another anomaly.

EP01.07 Hemoglobinopathies and pregnancy: parameters for early screening

Veronica Tovar (1), C Henriques (1)

(1)Odense University Hospital, Odense Denmark

Objectives: Hemoglobinopathies(HGP)are inherited disorders of the hemoglobin and affects around 4,5% of the world population. These conditions are divided in 2 groups:Sickling disorders(qualitative abnormalities)and Thalassemia syndroms(quantitative problems of the globin chain synthesis).Womens with these conditions require to be identified preconceptionally or early in pregnancy to prevent complications involving the mother or the fetus like fetal hydrops in the major trait forms.The aim of this study is to recognize screening parameters that can be used in high risk groups of major HGP. Methods:Litterature review.Pubmed.Searching Hemoglobinopathies in combination with: pregnancy,programs,prenatal diagnosis and Denmark. Results:Review from different scientific journals were obtained.Screening must start preconceptionally:ethnicity and family history in combination with red cells analysis(hemoglobin and mean corpuscular volume)are the initial parameters to take care.Hemoglobin electrophoresis and DNA(PCR) are the gold standard test to diagnose the kind and severity of the hemoglobinopathy.Partner hemoglobin status will facilitate appropriate and timely antenatal counseling and prenatal diagnosis. Conclusions:The patients' ethnicity and family history are key points for initiating screening followed by red cells analysis. Hemoglobinelectrophoresis and DNA (PCR) are diagnostic in the case of microcytic anemia.

EP01.08 Second trimester induced abortion: A right or after permission?

Øjvind Lidegaard (1)

(1)Rigshospitalet, Denmark

Background. The expanded offer of prenatal screening has increased the prenatal detection of minor and major fetal malformations. Legislation on induced 2nd trimester abortion (ISTA) differs between also Nordic countries. Aim Should we move from permitted ISTA towards right to ISTA? Reflections Arguments for right to ISTA: 1) In countries with this right, e.g. UK, such a right has been in function for decades apparently without serious problems. 2) The possibility to control a refusal in a couple determined to terminate pregnancy is today in reality limited. 3) It is the parents who should live with a child with a certain disease/malformation. 4) The ethical view on ISTA differs from couple to couple. Uniform rules don't take these differences into account. 5) We encourage parents to more responsibility for their reproductive health including prenatal screening – why not also for ISTA. 6) The majority of wishes are obliged anyway. 7) Permission procedure delay the abortion. 8) A positive list permitting ISTA is in practice not possible to establish. Arguments against right to ISTA: 1) Some couples could choose abortion in situations perceived as unethical among some other people. 2) Some women could delay their decision with right to ISTA. 3) Some people fear a slide with more ISTAs on less serious indications. Conclusion More conditions favour right to ISTA than permission to ISTA.

EP02 E-poster session 2 Urogynecology

EP02.01 Urinary incontinence one year after delivery in primiparous women compared with nulliparous women

Bent Brandt Hansen (1), J Svare (2), G Lose (2), L Viktrup (3), T Jørgensen (3)

(1)Gentofte Hospital, Denmark

(2)Herlev Hospital, Denmark

(3)Glostrup Hospital, Denmark

Objective: In a prospective study to estimate the prevalence of urinary incontinence in primiparous women during pregnancy and one year after the delivery, and compare it with the prevalence in an age matched control group of nulliparous women. Methods: We used the ICIQ-SF questionnaire to assess urinary incontinence in the two groups. Results: The prevalence of urinary incontinence one year after delivery was 29% in the primiparae group, compared to 17% in the control group ($p < 0.001$). Conclusions: Urinary incontinence is not an insignificant symptom among young, nulliparous women, although the prevalence is nearly doubled among primiparous women one year after delivery.

EP02.02 Pelvic organ prolapse surgery in Denmark from 1976-2009

Ea Løwenstein (1), B Ottesen (1), Ø Lidegaard (1), H Gimbel (2)

(1)Rigshospitalet, University of Copenhagen, Denmark

(2)Gentofte Hospital, University of Copenhagen, Denmark

Background: Pelvic organ prolapse is a common problem among elderly women. An American study shows that the lifetime risk for POP surgery is 11%. However, despite the magnitude of the problem, the epidemiology of pelvic organ prolapse surgery is not very well described. Aim: To describe the incidence of pelvic organ prolapse (POP) surgery in Denmark from 1976 to 2009, regional variations, and to determine the incidence of recurrence for prolapse surgery. Method: All the women who had a surgery for pelvic organ prolapse in Denmark through 1976 – 2009 are included in the study. Data are obtained from the Danish National Patient Register. Results and conclusion: The calculations of the results are ongoing. The results will be as presented as follows: • Incidence of all prolapse operations as well as incidence of colpoorrhaphia anterior, colpoorrhaphia posterior, Manchester operations, and vaginal hysterectomies with the indication of pelvic organ prolapse will be presented over time (1976 - 2009) per 100.000 women. • Incidence of pelvic organ prolapse surgery by age groups in 1985, 1996 and 2009. • Incidence of operations for recurrence pelvic organ prolapse as related to the operation originally performed. Time period: 1976 – 2009. • The distribution of pelvic organ prolapse surgery in different regions of Denmark.

EP02.03 Urinary incontinence 20 years after delivery - vaginal vs caesarian section in primiparous women of normal weight

Maria Gyhagen (1), T Nielsen (1), I Milsom (1)

(1)Institute of Clinical Sciences, Sahlgrenska Academy, Sweden

Objectives: The aim was to investigate the long term effects of vaginal delivery (VD) vs caesarian section (CS) on the rate of urinary incontinence (UI) and stress UI (SUI) in women of normal weight at term. Methods: This study is part of the Swepop study (Swedish pregnancy, obesity and pelvic floor study). Maternal data were obtained from The Swedish Medical Birth Register. The population consisted of women of normal weight at term (BMI <25) with only one delivery (singleton pregnancy) and who gave birth from 1985-89. In 2008 a self-administered postal questionnaire regarding UI and SUI (ICI definition 2002) was sent to the women who met the inclusion criteria. Results: There were 935 births which met all the criteria;

724 vaginal and 211 caesarian deliveries (149 elective CS, [ECS] and 62 acute CS [ACS]). The frequency of UI was 32.7% in the VD group and 29.4% in the CS group (ECS 28.9%; ACS 30,7%). The rate of SUI was 24.9% in the VD group and 24.1% in the CS group (22.7% in the ECS group and 27.4% in the ACS group) (NS for VD v CS and between all three groups for both UI and SUI). Conclusions: For women with a normal weight at term the risk for UI 20 years after birth is very similar regardless of the route of delivery. This is also true for the frequency of SUI - a condition that, in many studies, has been associated with vaginal delivery.

EP03 E-poster session 3 Gynecological oncology

EP03.01 Screening history in women with cervical cancer in the Danish screening programme

Susanne Poll (1), C Rygaard (2), A Wählin (3), J Junge (2), B Kirschner (1)

(1)Herlev University Hospital, Department of Gynaecology and Obstetrics, Denmark

(2)Hvidovre University Hospital, Department of Pathology, Denmark

(3)Hillerød University Hospital, Department of Pathology, Denmark

The aim of this study was to describe the screening histories of newly diagnosed cervical cancers in a Danish screening population, and to evaluate the significance of routine screening in the development of cervical malignancy. The Regional Steering Committee for Cervical Cancer Screening in Greater Copenhagen implemented a pilot project with routine audit of all new cervical cancer cases. This study describes the results of the audit in years 2008 and 2009 from two screening-centers (population of 960.000 inhabitants). This audit encompasses evaluation of patients charts and review of cytological and histological cervical samples with normal diagnosis, where malignant disease was diagnosed within a 5.5 year period. 117 women were diagnosed with cervical cancer. The histological diagnoses comprised: 63 (25.9%) squamous cell carcinomas, 22 (18.8%) microinvasive squamous cell carcinomas, 28 (23.9%) adenocarcinomas and 4 cancers of different histology. The mean age of study subjects was 46.2 years. 49 (41.9%) women had followed screening recommendations and had normal cervical samples. 51 (43%) women had not participated in the recommended screening program. 13 women were diagnosed with false negative tests within 5.5 years of disease detection (11 cytological samples, 2 histological samples). Cytological specimens were not available for 4 women. Conclusively, 40% intervalcancers emphasize the importance of further testing for women with relevant symptoms, despite normal cervical cytology. Our study shows the importance of routine cervical cytology and a need for a higher degree of screening participation. Additionally, 10% false negative cytological samples are consistent with previous reports.

EP03.02 Endoglin (CD105) in ovarian carcinoma effusions

Annika Jøntvedt Bock (1,2), HT Stavnes (2), J Kærn (3), AC Staff (1,4), B Davidson (2,4)

(1)Department of Obstetrics and Gynaecology, Oslo University Hospital, Ullevål, Oslo, Norway

(2)Department of Pathology, Oslo University Hospital, Norwegian Radium Hospital, Oslo, Norway

(3)Section for Gynaecologic Oncology, Division of Obstetrics and Gynaecology, Oslo University Hospital, Norwegian Radium Hospital, Oslo, Norway

(4)Faculty of Medicine, University of Oslo, Norway

OBJECTIVES: Endoglin (CD105) is a cell-surface co-receptor for transforming growth factor beta (TGF- β), highly expressed on proliferating endothelial cells. Its expression in tumor vasculature has prognostic value in a variety of solid cancers, and endoglin plays a key role in promoting tumor growth. We studied the

expression of endoglin in effusions from women with advanced-stage ovarian carcinoma, and assessed the association between protein levels and clinical parameters. METHODS: The cellular expression of endoglin was investigated by immunocytochemistry in 114 (88 peritoneal and 26 pleural) ovarian carcinoma effusions. Cytoplasmatic and membranous staining was compared to the levels of soluble endoglin (determined by ELISA) in 45 corresponding effusions. Protein expression was analysed for correlation with clinicopathological parameters and survival. RESULTS: Endoglin was detected in carcinoma cells in 44/114 effusions, whereas positive staining of reactive mesothelial cells was seen in 68/114 effusions. Staining was localized to the cell membrane and the cytoplasm in both cell types. The expression of endoglin did not correlate with any clinicopathological parameters or survival, neither did we find any association between cellular endoglin expression and soluble protein levels in effusions. CONCLUSIONS: The expression of endoglin in ovarian carcinoma effusion cells is not associated with disease outcome. This is in contrast to the situation in breast cancer patients, where higher endoglin expression in effusion cancer cells correlates with poor survival. Our findings may reflect differences in tumor biology between these two epithelial malignancies.

EP03.03 Treatment of cervical intraepithelial neoplasia in Denmark, 1991 to 2007

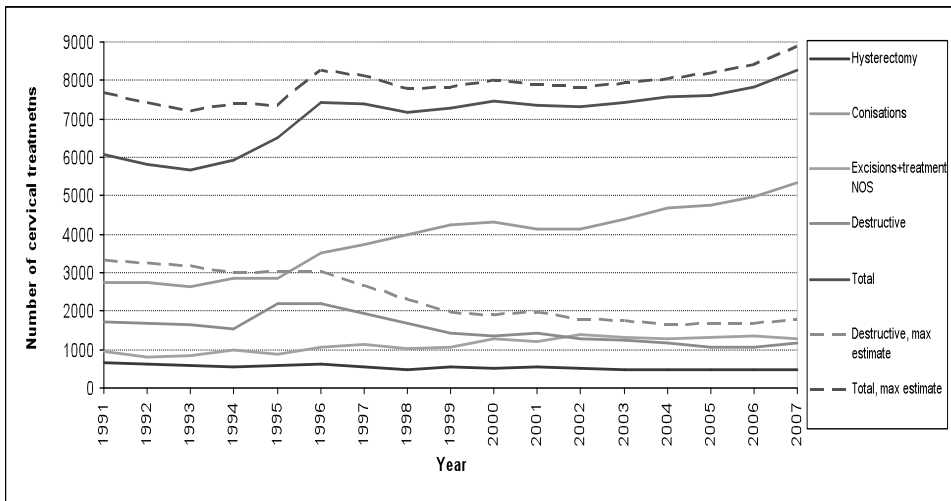
Sidsel Svennekjær Barken (1), M Rebojl (1), ES Andersen (2), E Lynge (1)

(1)Centre for Epidemiology and Screening, Department of Public Health, University of Copenhagen, Copenhagen, Denmark

(2)Department of Obstetrics and Gynecology, Aalborg Sygehus, Aalborg, Denmark

Objectives: The number of invasive cervical cancers peaked in Denmark in 1966 with 963 cases. Cervical cancer is prevented by treatment of screen-detected cervical intraepithelial neoplasia (CIN). We assessed the trend in CIN treatments in Denmark. Material and Methods: From highly complete Danish national registers: (Hospital Discharge Register, Health Insurance Register, Danish Cancer Register, and the Patobank), we retrieved all registrations of hysterectomies, conisations, excisions, and destructive therapies for Danish women aged 15 to 84, between 1991 and 2007. We linked the data using the unique Danish identification numbers, and excluded all duplicate registrations. We excluded all destructive therapies and hysterectomies for which no CIN or cervical cancer diagnosis was found in the period from 3 months before to 1 month after the treatment date. We age-standardized the number of cervical treatments using Danish women in 2007 as standard population. Results: The preliminary analysis shows that the number of treatments increased from about 6,000 in 1991 to about 8,200 in 2007, most noticeably due to an increase of about 2,600 in the number of conisations (Figure 1); an increase which was not compensated by a decrease in the number of other treatments. There is, however, still some uncertainty regarding the estimated number of destructive treatments for CIN. Using a maximum estimate, we observed an increase in the total number of CIN treatments from 7,600 in 1991 to 8,900 in 2007. Conclusion: Since 1991 the burden of CIN treatment increased in Denmark mainly attributable to the increase in number of conisations.

Figure 1: Total number of CIN treatments (conisation, destructive therapy, excision, treatment NOS and hysterectomy attributed to CIN) in Denmark, 1991 – 2007.



EP03.04 Differential expression of progesterone receptor A+B in vaginal epithelium in anti-estrogen treated breast cancer patients and postmenopausal controls

Theodora Kallak (1), J Schlenstedt (2), K Kask (1), K Nilsson (2), I Sundström Poromaa (1), A Staverus-Evers (1)

(1)Department of Women's and Children's Health, Uppsala university, Uppsala, Sweden

(2)Department of Obstetrics and Gynaecology, Örebro Medical Center Hospital, Örebro, Sweden

Objectives: Urogenital dryness is often a problem for postmenopausal women. For women treated with aromatase inhibitor during breast cancer treatment, the problems are even more severe. The expression of steroid hormone receptors in vaginal tissue from anti-estrogen treated breast cancer patients were studied to understand biochemical mechanisms for urogenital symptoms caused by estrogen deficiency. Methods: Vaginal biopsies from 4 study groups consisting of breast cancer patients treated with aromatase inhibitors or tamoxifen and postmenopausal controls with or without estrogen replacement therapy were used for immunohistochemical studies. Staining intensity for epithelial and stromal expression of estrogen receptor alpha (ER α), progesterone receptor A+B (PR A+B) and androgen receptor (AR) were studied in all 4 groups. Results: Epithelial expression of PR A+B in breast cancer patients treated with aromatase inhibitors was significantly lower than patients treated with tamoxifen ($p = 0.001$) and postmenopausal controls both with and without estrogen replacement therapy ($p < 0.05$). Expression of PR A+B in patients treated with tamoxifen was significantly higher than controls both with and without estrogen replacement therapy ($p < 0.05$). There was no significant difference between the postmenopausal controls with our without estrogen replacement therapy. The expression of ER α and AR did not differ between the groups. Conclusion: The different expression of PR A+B in the aromatase inhibitor treated patients and tamoxifen treated patients may reflect the different mechanisms of action of the two drugs and it may be important for understanding the underlying mechanisms for urogenital symptoms caused by estrogen deficiency.

EP03.05 Cerebral metastasis from a uterine leiomyosarcoma - a case report

Trine Lunde Perin (1), J Hansen-Schwartz (2), A Mortensen (2)

(1)Herlev University Hospital, Denmark

(2)Glostrup University Hospital, Denmark

INTRODUCTION: Despite the ubiquitous distribution of smooth muscle cells leiomyosarcoma is a rare tumour accounting only for approximately 1% of all malignant tumours. Uterine sarcomas comprise less than 1% of gynaecologic malignancies and 2% to 5% of all uterine malignancies. Only 16 cases of cerebral metastasis from uterine leiomyosarcoma have been reported. **CASE REPORT:** A 57 year-old woman had a stage III uterine leiomyosarcoma radically resected. After five years of observation local relapse was detected and surgery was performed again. After another three years of observation the patient was admitted with a cerebral haemorrhage which was evacuated. Control CT-scan two weeks later demonstrated a contrast enhancing mass which was surgically removed and histology verified as metastatic leiomyosarcoma. The patient was dependent on care after surgery and died after another eight months.

DISCUSSION: The survival of patients suffering from leiomyosarcoma is related to the mitotic stage at time of presentation. Brain metastases may on occasion constitute the first presentation of malignant disease, yet they are more often sign of late stages of cancers. In advanced stages of disease 10% of cancer patients develop cerebral metastatic disease. The finding of a cerebral metastase in the present case may be a function of survival time.

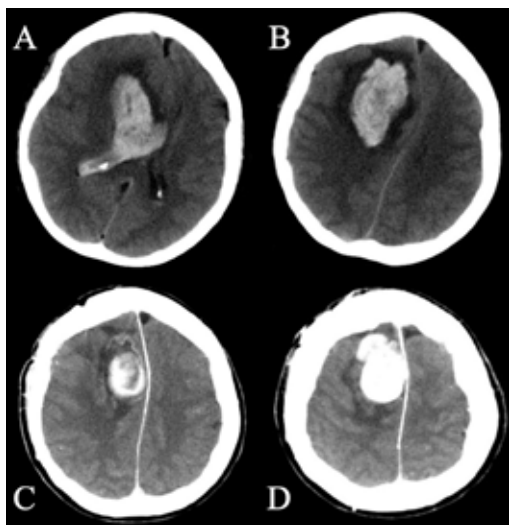


Figure 1

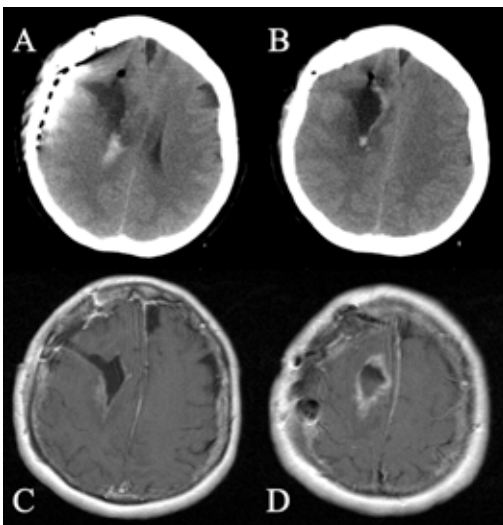


Figure 2

EP04.01 The effect of calcium supplementation during pregnancy on preeclampsia in primiparous beyond age 35

Azar Aghamohammady (1)

(1)Islamic Azad University,Sari Branch, Sari, Iran

Objective:To assess the effect of calcium supplementation during pregnancy on preeclampsia in primiparous beyond age 35 Method:500 singleton healthy primigravidas beyond age 35 with a normal blood pressure were randomly assigned between the 15th and 20th weeks to receive 2000 mg/day of elemental calcium and or placebo and were followed-up until delivery. Results:The incidence of pre-eclampsia was significantly less in the calcium than in the placebo group (4.7% vs 10.5%) $P = 0.013$. Conclusion:Calcium supplementation appears to reduce the occurrence of pre-eclampsia in primiparous women beyond age 35. Key word: calcium supplementation- preeclampsia- primiparous

EP04.02 Use of 24-hour urinary calcium for prediction of preeclampsia

Azar Aghamohammady (1)

(1)Islamic Azad University,Sari Branch, Iran

Objective:To assess the efficacy of 24-hour urinary calcium for the prediction of preeclampsia. Materials and Methods:one hundred fifty normotensive women at 20–26 weeks' gestation were enrolled in the study. All women were asked to collect a 24-hour urine sample. Urinary calcium were measured and expressed as milligrams per 24 hours. The efficacy of 24-hour urinary calcium for the prediction of preeclampsia were assessed. Results:sixteen of the 150 women developed preeclampsia, including six who developed severe preeclampsia and 10 who developed mild preeclampsia. Compared with the normotensive women ($n = 134$), the hypertensive patients ($n = 16$) had significantly lower urinary calcium excretion (165.30 ± 78.53 mg vs. 265.40 ± 58.41 mg) Conclusion:A decrease in 24-hour urinary calcium between 20–26 weeks' gestation are risk factors for preeclampsia. Key word:calcium-preeclampsia-24-hour urinary.

EP04.03 Perinatal and neonatal outcomes and their determinants in Vietnam

Sophie Graner (1), M Klingberg-Allvin (2), HD Phuc (3), DL Huong (4), G Krantz (5), I Mogren (1)

(1)Inst Clinical Sciences, Dept of obsterics and gynecology, Umeå, Sweden

(2)Public Health Sciences, Karolinska Insitute, Stockholm, Sweden

(3)Inst of Mathematics, Hanoi, Vietnam

(4)Human Development Sector, World Bank, Hanoi, Vietnam

(5)The Sahlgrenska Academy at Gothenburg University, Gothenburg,Sweden

The objective of this population-based prospective cohort study was to investigate adverse perinatal and neonatal outcomes with special focus on small for gestational age (SGA), and their determinants and to suggest preventive measures. A rural population in Northern Vietnam was investigated during 1999 to 2005 ($N = 5224$). Based on the birthweight distribution within the population under study, a reference curve for hypothesized intrauterine growth for Vietnamese infants was constructed and the prevalence and distribution of SGA was calculated. Neonatal mortality was estimated to 11.6 per 1000 live births and the perinatal mortality to 24.2 per 1000 births during the study period. The mean birthweight was 3106 grams and the prevalence of low birthweight was 5.3%. The overall prevalence of SGA was 6.7%. SGA increased with gestational age and was 2.6%,4.8% and 27.4% for preterm, term and post term infants, respectively. SGA was associated with perinatal mortality irrespectively of gestational age (fig1). Risk factors

for SGA was post term birth (AOR 7.38; CI 5.76-9.47), maternal age < 19 years (AOR 1.43; CI 1.00-2.02), farming women (AOR 1.68; CI 1.19-2.36), and female sex (AOR 1.57; CI 1.24-1.97). There was a marked decrease in the neonatal mortality after 33 weeks of gestation. Suggested interventions to improve perinatal and neonatal outcomes in Vietnam include induction of labour after 42 weeks of gestation and to promote preterm deliveries to take place at health care facilities with access to surgical competence as well as neonatal care units.

Perinatal mortality per gestational week among SGA infants compared to non-SGA infants.

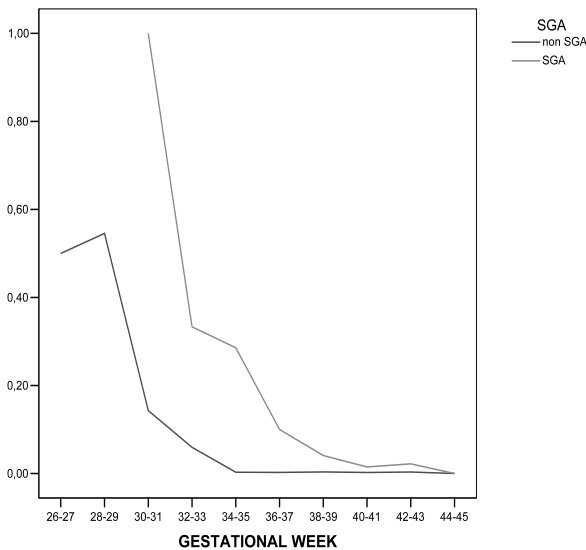


Fig 1: Perinatal mortality per gestational week among SGA infants compared to non-SGA infants.

EP04.04 Maternal signaling from visceral adipose tissue during early onset preeclampsia

Berit Dahlström (1), Y Esbensen (1), H Vollan (1), P Øian (2), G Bukholm (1)

(1)Fakulty Division Akershus, University of Oslo, Norway

(2)University of North Norway, Norway

Adipose tissue, an endocrine organ that secretes a variety of factors central to the maintenance of energy homeostasis, may be involved in the development of preeclampsia. Our aim was to evaluate genome signaling in the omentum during early onset preeclampsia using microarrays. RNA microarrays (Agilent) were conducted on omental samples from women with early onset preeclampsia and healthy pregnant controls, all delivered by cesarean section. BAMarray retrieved differentially expressed genes ($p < 0.01$). Clustering was performed using J-express. Signaling genes were localized within pathways and gene sets associated with inflammation. A distinct expression pattern was identified in the omentum. Ninety eight (0.3%) genes were changed. Cytokines usually associated with visceral fat were not signaling. CXC-motif chemokine 1 (CXCL1), collagen/fibrinogen domain containing 1 (FCN1) and prostaglandin G/Hsynthase and cyclooxygenase 2 (PTGS2) were down regulated while long pentraxin 3 (PTX3) was up regulated. Novel information regarding in vivo genome expression in visceral adipose tissue during early onset preeclampsia was acquired. The changes were unexpected and indicated a role for the omentum during early onset preeclampsia.

EP04.05 Low serum interleukin-17 is associated with preterm delivery

Lene Hee Christensen (1), I Kirkegaard (1), I Vogel (2), N Uldbjerg (1), P Sandager (1)

(1)Aarhus University Hospital, Department of Obstetrics and Gynecology, Skejby, Denmark

(2)Institute of Public Health, Faculty of Health Sciences, University of Aarhus, Aarhus, Denmark

Objective: To study maternal serum interleukin-17 (IL-17) during normal pregnancy and to evaluate the association with preterm delivery. Material and Methods: The study was a prospective cohort study carried out at Aarhus University Hospital, Denmark, including three cohorts of pregnant women: 1) A low risk cohort of 1,069 women who had serum drawn in weeks 12 and 19. 2) A longitudinal cohort; a subgroup of the low risk cohort, consisting of 40 women, who had serum drawn at 12, 19, 26, 33, and 39 weeks of gestation. 3) A symptomatic cohort of 93 women who had serum drawn at admission with symptoms of preterm delivery (contractions, PPROM or cervical ripening) at a gestational age of 24+0 to 33+6 weeks. For all three cohorts serum IL-17 was determined by an in-house developed multiplex sandwich immunoassay. Results: Among all women with symptoms of preterm delivery, serum IL-17 was statistically significant lower for those who actually delivered preterm as compared to those who eventually delivered at term (not detectable versus 6.0 pg/mL; $P = 0.03$). The same results was found when studying only women with contractions (not detectable versus 6.8 pg/mL; $P = 0.03$), whereas women with PPROM all delivered preterm and had decreased serum IL-17 (not detectable). A slightly but not statistically significant decrease was found in week 12 and 19 in low risk women who subsequently delivered preterm. Serum IL-17 concentrations did not change with gestational age Conclusion: Maternal serum IL-17 is involved in preterm delivery

EP04.06 Significance of measuring of serum markers in PPROM

Sasa Savic (1), B Cancarevic (1), R Tanjga (2)

(1)Clinics of obstetrics and gynaecology, Department of Perinatology, Banja luka, Bosnia and Herzegovina

(2)Medical faculty of University of Banja Luka, Bosnia and Herzegovina

The aim of the study is to determine significance of serum and cervical markers as possible etiological factors in perinatal infection in PPROM. The study was conducted with 80 patients that were diagnosed with PROM – Premature Rapture of Membrane/and possibility of premature birth in gestation time of 24 to 37 weeks hospitalized in the Gynecology and Obstetrics Clinic. Women /n80/ were divided in two groups /experimental/n30/made of patients with PPROM and control/n50/ with a threat of premature birth. Respondents were of similar age, parity, gestation period and social and economic status. CRP/C reactive protein, number of leucocytes and cervical smear culture results were analyzed. CRP was significantly higher in the group of women with PPROM/56.6%/ when compared to the control group /18%/. Analysis of leucocytosis has not shown significant difference between experimental group /36.6%/and control group /38%/ as well as in comparison of rates of positive results of cervical smear cultures 70% in experimental and 58.8%in control group.

EP04.07 Risk factors for CVD after preeclampsia or diabetes in pregnancy

Anne Stine Kvehaugen (1), L Frost Andersen (2), AC Staff (1,2)

(1)Oslo University Hospital, Ulleval, Oslo, Norway

(2)Faculty of Medicine, University of Oslo, Oslo, Norway

OBJECTIVES. Women and offspring with a history of diabetes mellitus (DM) or preeclampsia (PE) in pregnancy run an increased risk of future cardiovascular diseases (CVD). Maternal constitutional factors may be part of the etiology. We aimed at exploring whether there are any differences in modifiable CVD risk-factors between women and offspring after PE or DM in pregnancy, compared to uncomplicated pregnancies

(controls, C). METHODS. Sixty-three mother-child-pairs were recruited 5-8 years after a pregnancy complicated by PE (n=23), DM (n=23; gestational diabetes (GDM, n=12), DM type 1 (DM1, n=11)) or C (n=17). Anthropometrics and blood pressures (BP) were measured in mother and child, and diet and physical activity data were obtained through short questionnaires. All non-diabetic women underwent an oral glucose challenge test. RESULTS. Women in the PE- and DM-group had a higher median systolic BP ($p<0.05$), and more often abdominal obesity (waist-circumference ≥ 88 cm, ($p<0.05$) and waist-to-hip-ratio ≥ 0.85 , ($p<0.01$), compared to controls. Fasting serum glucose was higher in the GDM-group ($p<0.05$) compared to controls. Women in the DM- and PE-group were less physical active compared to C-women ($p<0.01$ and $p<0.05$ respectively). More children in the C-group followed the Norwegian fruit recommendations compared to children in the DM-group ($p<0.01$). A non-significant higher proportion of children of DM- and PE-pregnancy were overweight compared to controls. CONCLUSIONS. Our study has identified several risk factors for CVD in women and children 5-8 years after pregnancies complicated by PE or DM. Excess weight and physical inactivity could be possible targets for intervention.

EP04.08 Construct validity of PROMPT birthing simulator

Mathilde Maagaard (1), M Johansen (1), CR Larsen (1), B Ottesen (1), C Ringsted (2), JL Sørensen (1)
(1)Rigshospitalet, Juliane Marie Centre for Children, Women and Reproduction, Denmark
(2)Rigshospitalet, Centre of Clinical Education, Denmark

Background Objectives and Hypotheses: High fidelity and more advanced birth simulators are now being implemented in obstetrics training programmes. The advantages of these simulators are under discussion. To measure the effect of simulationbased training there is a need for valid assessment tools. The aim of this study is to assess the construct validity of the PROMPT birthing simulator in order to discover whether the electronic data obtained from the simulator can be used to differentiate between different proficiency levels of doctors in a clinical setting. The PROMPT birthing simulator measures time, pressure in Newton applied to the neck of the baby and when specific actions are done. An assessment tool based on the principle of Objective Structured Assessment of Technical Skills (OSATS) score for ventouse deliveries has been developed: Objective Structured Assessment of Vacuum Extraction (OSAVE). Methods: Design: a descriptive observational study. 20 participants: 10 novices (trainees) and 10 senior consultants. All were tested at the PROMPT in management of ventouse delivery. Assessment of performance were evaluated by experts blinded for proficiency level through video evaluations using the OSAVE score and from electronic data obtained from the simulator. Construct validity of the PROMPT birthing trainer can be calculated by comparing the OSAVE score against the electronic data from the PROMPT birthing trainer. Results and Conclusions: Results from the study will be presented at the conference.

EP04.09 Levels of urinary prothrombin fragment 1.2 are increased in preeclampsia and placental infarcts

Anita Sylvest Andersen (1), I Deltour (2), T Bergholt (1), JG Berthelsen (1), HC Sørensen (3), MR Lassen (4)
(1)Hillerød Hospital, Denmark
(2)Institute of Cancer Epidemiology, Danish Cancer Society, Copenhagen, Denmark
(3)Department of Gynecology and Obstetrics, Glostrup Hospital, Denmark
(4)Clinical Trial Unit, Hørsholm Hospital, Hørsholm, Denmark

Objective: To assess the levels of urinary Prothrombin F1.2 (uF1.2) in pregnancy as a predictor of preeclampsia (PE) and placental infarcts. Methods: Three groups were identified from a prospective cohort of pregnant women with standardized data collection on pregnancy, delivery, placenta and neonatal outcome: PE (N: 82), gestational hypertension (GH) (N: 33) and normotensive controls (N: 91). Urine and blood

time-varying exposure and maternal age as the time axis showed that 4 deliveries is a significant risk factor of diabetes in comparison with 1 delivery (RR 2.1, 95% CI 1.8; 2.5), while 5 or more deliveries conferred a relative risk (RR) of 4.1 (95% CI 2.6; 6.2). Outcomes were adjusted for foetal weight and duration of gestation at the index pregnancy. The association was less clear but still significant for women above the age of 40. Conclusion: The study indicates that parity accelerates the onset of later diabetes and that the risk of diabetes increases with parity.

EP04.11 Sheehan's syndrome in modern times

HL Kristjánsdóttir (1), Sigrún Perla Böðvarsdóttir (2), HÁ Sigurjónsdóttir (1,3,4)

(1)Dept of Internal medicine. Landspítali University Hospital, Iceland

(2)Dept of Obstetrics. Landspítali University Hospital, Iceland

(3)Dept of Internal medicine and Endocrinology, Landspítali University Hospital, Iceland

(4)School of Medicine, University of Iceland, Reykavík, Iceland

Introduction Sheehan's syndrome (SS) is a pituitary failure occurring in women after labour. Earlier, the prevalence (P) was 10-20 per 100.000 women, decreasing with better obstetric care (OC). In developing countries SS is a big health issue. The aim of this study was to estimate P of SS presently in Iceland. Methods This is a nationwide, retrospective, population based study. Patients were identified by interviewing all practising endocrinologists in Iceland and by scanning the electronic journal system of Landspítali University hospital. Information regarding OC, clinical presentation and hormonal results were collected. Results Eight women were identified with SS, thus P was 5.1 per 100.000 women. The average age at inclusion in the study and mean age at delivery and diagnosis was 51.5, 33.0 and 36.6 years respectively, thus diagnostic delay (DD) was 2-240 months. The one with the longest DD (20 years) was diagnosed incidentally. Four women had low blood pressure during delivery, five had massive blood loss (>1000ml) and six had complicated deliveries. The women had 3-5 failing pituitary axis; somatotropic (n=6), corticotropic (n=5), thyreotropic (n=5), gonadotropic (n=6) and prolactin (n=6). No connection was between complications during delivery and DD or the multiplicity of hormonal deficiency. Discussion The low P of SS in Iceland can be explained by modern OC available. Long DD and incidental diagnosis indicates that women might be missing the correct diagnosis and treatment. As SS is easily diagnosed and treatable, but can be life-threatening if unrecognised, doctors need to be aware of the disease.

EP05.01 Insomnia in middle-aged women - a comorbid disease

Päivi Polo-Kantola (1,2), M Aromaa (3), P Rautava (3), M Sillanpää (3)

(1)Turku University Hospital, Dept Obstetrics and Gynecology, Turku, Finland

(2)Turku University, Sleep Research Unit, Turku, Finland

(3)Department of Public Health, University of Turku, Turku, Finland

Objective: To evaluate the prevalence of insomnia in middle-aged women and to assess related factors involved. Material and Methods: The study is a part of a 15-years follow-up study of the Finnish Family Competence Study (FCC). 830 women (mean age 41.9 years) returned the questionnaire. Sleep quality was studied with the Basic Nordic Sleep Questionnaire (BNSQ). The effect of health, subjective health, age, BMI, socioeconomic status and physical exercise on sleep were examined. Results: 23% reported good, 43% quite good, 12% average, 10% quite poor and 3% poor quality of sleep. The most frequent sleep problem was awakenings in the night: 60% of the women experienced them weekly. 16% had difficulties in falling asleep and 20% woke too early in the morning. 44% experienced sleepiness in the morning and 32% during the day. 3% used sleeping pills at least weekly. Chronic diseases and use of medication were important in relation to various sleep problems. Both somatic and mental symptoms in subjective health progressively associated with higher risk for all kind of sleep problems. Age, BMI, physical exercise, employment status and working status had only random effects. Conclusions: Insomnia is common already among middle-aged women. Women with chronic diseases or use of medications often suffer from insomnia. Also both somatic and mental health is an important predictor. Thus, when managing these patients, clinicians should carefully evaluate the etiological factors causing insomnia and direct the treatment on them instead of merely prescribing sleeping pills.

EP05.02 The psychologist - a new member of the staff in a gynaecological obstetrical department?

Rikke Pristed (1), A Højgaard (1)

(1)Regionshospitalet Randers, Gynekologisk/Obstetrisk afdeling, Denmark

The aim of the paper is to describe our experiences of having employed a part-time psychologist in a regional gynaecological obstetrical department. We present data on distribution of patient groups who opt for consultation and the resources we have spent on this new option. Secondly the presentation aims to elucidate the possible benefits for the staff. Method: All files involving the psychologist in 2009 were revised. Results: The psychologist had 163 patients. Reasons for referral were; foetus mortuus, fear of giving birth, traumatic reaction to delivery, anxiety concerning gynaecological examination, abortion, undetected pregnancies in underage girls, mothers with postnatal depression and other reasons. The patients were hospitalized or outpatients, during as well as after treatment/delivery. A smaller number of sessions were dedicated staff after traumatic episodes at work. Conclusion: There seems to be enough work for a psychologist in our setting. The offer gives a high level of satisfaction among staff and patients. The possibility of referring to an on-staff psychologist with short notice, gives the staff a unique opportunity to help patients that would otherwise have no offer of counselling, and can make treatment/delivery easier. It can also make patients more satisfied with treatment. Regarding sessions with staff after traumatic episodes, it can potentially increase work-satisfaction, and decrease work-related stress.

EP06.01 Mental training and childbirth - the effect on pain experience, birth length and other birth outcomes

Anette Werner (1), EA Nøhr (2), B Zachariae (3), ÅM Hansen (4), N Uldbjerg (1)

(1)Aarhus Universityhospital, Skejby, Denmark

(2)Institute of Public Health, University of Aarhus, Aarhus, Denmark

(3)Psychooncology Research Unit, Aarhus University Hospital, Skejby, Denmark

(4)National Research Centre for the Working Environment

Background: Labour pain is a challenge to the parturient woman and pharmacological pain relief methods to relieve birth pain are limited and often associated with side effects. Several studies indicate that a mental trainings method, self-hypnosis, has a positive impact on labour pain and several other birth outcomes. However, many of these studies may be prone to bias and confounding. Aim: The aim of this study is to examine the effect of a short antenatal course in self-hypnosis on several endpoints: Primary:

- The use of epidural analgesia during birth
- Length of birth
- Birth progression at admission to labour
- Birth experience (pain, control, anxiety)
- Medical interventions during birth including mode of delivery
- Hemorrhage during birth
- Saliva cortisol profile at birth and 6 weeks p.p.
- Infection during birth and the first 6 weeks p.p. (mother and child)
- Postnatal depression
- Breastfeeding duration
- Child's condition and wellbeing at birth and 6 months later
- Future mode of delivery

Method: The study is designed as an interventional single center study. It is a randomised controlled single blinded trial using a 3 arm group design - intervention group, active comparator group and control group The data collection is based on questionnaires, register data, medical records and biological material. We started including participants during July 2009. At this moment we have approximately included 400 women. In total we plan to recruit 900 participants.

EP06.02 Is a 30 minute standard for acute cesarean section possible to achieve?

Ole Bredahl Rasmussen (1)

(1)Regional Hospital Randers, Department of Obstetrics and Gynaecology, Randers, Denmark

Background: A consensus concerning the definitions on standards for acute Cesarean Sections (CS) was agreed upon by DASAİM and DSOG by January 2009 in Denmark. Decision to delivery time for grade 2 CS should preferably not exceed 30 minutes. The aim of this study was to describe what the actual time spent on grade 2 CS was, analyze the data and elucidate the obstacles to achieving the standards of care. Methods: The time from decision until delivery was broken down in several steps and the time consumed at all steps of the procedure was registered. The results were processed in Epi Data Analysis. Results: Analyzing the data using statistical process control shows that the process is stable but at a level where the agreed standards of care are not achieved. The mean was 30 minutes total response time from decision to delivery. The upper control limit (+ 3SD) was 47 minutes. The mean time spent in the delivery room from indication was 9.23 minutes while the mean time spent in the operating theatre until delivery was 17.69 minutes. Conclusion:

Data analysis revealed that the two most important problem areas were waiting for the porter taking the woman to the theatre and waiting for an epidural to be sufficient for an operation in the case where the woman has had an epidural during delivery. The analysis provided data which pointed out future work areas. This type of quality assurance is recommended as useful whenever certain standards of care are agreed upon.

EP06.03 Postpartum hemorrhage and obstetric interventions

Janne Rossen (1), I Økland (1), OB Nilsen (2), TM Eggebø (1)

(1)Department of Obstetrics and Gynecology, Stavanger University Hospital, Norway

(2)Department of Industrial Economics, University of Stavanger, Norway

Objective: To evaluate changes in postpartum hemorrhage and to explore risk factors associated with severe bleeding over a 10-year period. Methods: Retrospective cohort study at Stavanger University Hospital, Norway, from 1998 to 2007. The population was unselected, containing 41365 women who delivered at the hospital. Data were prospectively collected from the hospital's database. We analysed mean estimated bleeding, severe postpartum hemorrhage and obstetric interventions. Estimated blood loss of more than 1000 ml was defined as severe bleeding. Results: The observed incidence of severe postpartum hemorrhage increased substantially after cesarean sections, and after vaginal deliveries the increase was moderate. The risk of severe bleeding was two times higher after cesarean sections compared with vaginal deliveries (5.9%; 95% CI 5.3–6.6 vs. 2.8%; 95% CI 2.6–2.9). The rate of elective cesarean sections was doubled from 2.4 to 4.9% and acute cesarean sections increased from 5.5 to 8.9%. Operative vaginal deliveries increased from 9.3 to 12.5%, inductions of labour from 14.3 to 15.8% and augmentations of labour from 5.8 to 29.3%. The most important risk factors associated with severe bleeding following vaginal deliveries, were twin deliveries (OR 6.8), retained placenta (OR 3.9) and induction of labour (OR 2.2). After cesarean sections, twin deliveries showed the strongest association (OR 3.7) followed by general anesthesia (OR 3.0). The rate of twins was stable. Conclusion: We observed an increasing number of incidences of severe postpartum hemorrhage over time, and this finding may to some extent have association with more frequent use of obstetric interventions.

EP06.04 Antibiotic prophylaxis at caesarean section – regimen and timing - Norway

FE Skjeldestad (1,7), Hanne-Merete Eriksen (1), I Økland (2), R Heimstad (3), E Langen (4), T Nygård (4), A Sejerstad Bødker (5), Y Sandness (6)

(1)Norw. inst. of public health, Oslo, Norway

(2)Stavanger Universitetssykehus, Stavanger, Norway

(3)St. Olavs Hospital, Trondheim, Norway

(4)UNN, Bodø, Norway

(5)Vestre Viken, Drammen, Norway

(6)Vestre Viken, Kongsberg, Norway

(7)Kvinneklinikken, Institutt for klinisk medisin, UiT, Tromsø, Norway

Background: As a supplement the Norwegian surveillance system of surgical site infections (NOIS) initiated a survey comprising regimen and timing of antibiotic prophylaxis (ABP) during caesarean section (CS). Norwegian guidelines recommend ABP for all acute CS and on indications such as long duration of surgery/severe bleeding in elective CS. A single dose of ampicillin or first generation cephalosporin is recommended without specifying timing or dose. Cochrane recommendations are ABP for all CS at start of surgery. A study from 1997 found large variation in use of ABP in CS at 48 Danish hospitals. Objectives: to explore ABP regimes and timing of administration in CS in Norwegian hospitals relative guidelines. Methods: A survey targeting compliance with guidelines, regimen and timing of ABP during CS in hospitals carrying out CS in 2008 was undertaken in 2010. Results: Among 27 of 43 hospitals, who responded to the invitation, three did

not have written procedures. Four administered ABP to all CS, 6 to acute CS, 13 hospitals to acute and to elective CS on indication, whereas one hospital practiced ABP on indication, only. One hospital recommended Clindamycin, six recommended second generation cephalosporin, and 17 hospitals recommended ampicillin or first generation cephalosporin (two in combination with metronidazol). The recommended dose of first generation cephalosporin varied. 16 hospitals practiced ABP after cord clamping. Conclusions: Large practice variations in handling of ABP during CS are documented. National guidelines and practices are not in accordance with existing Cochrane recommendations. There is a need to revise national guidelines.

EP06.05 Antibiotic prophylaxis at caesarean section – guidelines and clinical practice – Norway

Finn Egil Skjeldestad (1), H-M Eriksen (2), HL Løwer (2)

(1)Norw. inst. of public health, Inst. of clinical medicin, Oslo, Tromsø, Norway

(2)Norw. inst. of public health, Norway

Background: Norwegian guidelines recommend prophylactic antibiotic use for all acute caesarean section (CS), while administered on indications such as long duration of surgery/ severe bleeding in elective CS, and differ from Cochrane recommendations, which advocate prophylactic use at start of surgery in all CS. Objectives: to explore completeness of reporting, compliance with guidelines and the effect of prophylactic antibiotics on surgical site infections (SSIs) in women having CS. Methods: Data sources were the Medical Birth Registry, Norway, and the Norwegian Surveillance system for surgical site infections (NOIS). CS comprises one of five major surgeries included in active post-discharge surveillance (PDS) of 30 days, from September 1st through November 30th, on annual basis. CDC definitions of infectious outcomes are applied. Results: The number of hospitals reporting on CS to NOIS increased from 20 in 2005 to 37 hospitals in 2008, representing 43% and 85% of the national volume of surgery, respectively. Completeness of 25 days PDS varied between 86-91%. SSIs remained stable with an incidence of 6% for wound infections, and 1-2% incidence of organ/space infections. Most wound infections were diagnosed after discharge (>80%), whereas more deep organ/space infections were diagnosed during hospital stay (>60%). Prophylactic antibiotics were applied in nearly 30% and 78% of elective and acute CS, respectively, with no major differences in incidence of SSIs by prophylactic use (inconsistent results). Conclusions: Completeness of reporting and compliance on active 30-days PDS are considered high. Infection rates remain low with no major difference in elective/acute surgery by use of prophylactic antibiotics.

EP06.06 Neonatal outcome by stage of labor in cesarean delivery

Toril Kolås (1), P Øian (2,3), FE Skjeldestad (3)

(1)Innlandet Hospital Trust Lillehammer, Norway

(2)University Hospital of North Norway, Tromsø, Norway

(3)Imstitute of Clinical Medicine, University of Tromsø, Tromsø, Norway

Objective: To analyze neonatal outcome related to stage of labor when deciding on cesarean section (CS). Methods: Eligible for analysis was 2,536 mothers with singleton pregnancy in cesarean delivery. Stage of labour was defined as emergency CS not in labor (gr. 1), emergency CS with cervical dilatation 3-9 cm (gr. 2), emergency CS with full dilatation (10 cm) (gr. 3), emergency CS performed after failed forceps/vacuum (gr. 4) relative elective CS (gr. 5, reference). Endpoints were Apgar score < 6 and rate of transferral to neonatal intensive care unit (NICU). Results: Overall, the prevalence of Apgar score < 6 after 5 min. was 2.4%, respective 4.1%, 2.3%, 4.6%, 4.6% and 0.9% in group 1-5. Similarly, the overall transferral rate to NICU was 27.4%, respective 47.6%, 21.9%, 21.1%, 32.3% and 17.9% in group 1-5. Among all neonates transferred to NICU 5.6% (39/695) had Apgar score < 6 after 5 min., highest rate in gr. 4 (14.3%). 2/3 of cases with Apgar score < 6 and 6-8 after 5 minutes were transferred to NICU, respective 21% of cases with

Apgar score 9-10. We could not demonstrate any indication for CS predicting low Apgar score or transferral to NICU in any study group. Conclusions: Even in elective CS we found high transferral rate to NICU (17.9%). Few (39/695) transferred neonates had low Apgar score. Routines for transferral of neonates after CS to NICU need a critical review.

EP06.07 Obstetricians' opinions about cesarean delivery on maternal request: should women pay themselves?

Dorthe Fuglenes (1), P Øian (2,3), D Gyrd-Hansen (4,5), JA Olsen (1,2), IS Kristiansen (1,5)

(1)University of Oslo, Oslo, Norway

(2)University of Tromsø, Tromsø, Norway

(3)University Hospital of Northern Norway, Tromsø, Norway

(4)Danish Institute for Health Services Research (DSI), Copenhagen, Denmark

(5)University of Southern Denmark, Odense, Denmark

Objective: To explore obstetricians' opinions on cesarean delivery on maternal request (CDMR), in particular their views on patient co-payments. Methods: Nation wide cross-sectional study of Norwegian obstetricians, (n=716, response rate 71%). Data were collected by a postal questionnaire covering socio-demographic variables, professional experience, and attitudes to CDMR (e.g. willingness to perform CDMR, difficulty in handling CDMR, views on how CDMR should be financed). Main outcome measures: Obstetricians' opinions about CDMR including its funding and use of patient co-payment. Results: 62% of respondents considered CDMR a difficult situation to handle. While 35% considered the costs of CDMR to be a public responsibility, 40% suggested use of co-payments ranging from € 188 - € 7500 (€1≈NOK 8.00). Male obstetricians less frequently considered CDMR a difficult situation to handle, and were to a greater extent in favor of public funding than females. Female obstetricians favored use of co-payments more often than male, and suggested higher co-payments. Significant correlation was found between the willingness to perform CDMR and being supportive of public funding ($r=+0.255$, $p<0.01$) as well as rejecting patient co-payments ($r=-0.265$, $p<0.01$). Obstetricians who found CDMR difficult to handle, supported co-payments to a greater extent ($r=+0.279$, $p<0.01$) and rejected public funding of CDMR ($r=-0.163$, $p<0.01$). Conclusion: The results indicate that a substantial proportion of obstetricians welcome some form of a barrier mechanism concerning cesarean requested without a medical indication.

EP06.08 Risk factors of post-cesarean infections

Rita Andersen Leth (1), N Uldbjerg (1), Mette Nørgaard (2), JK Møller (1), RW Thomsen (2)

(1)Aarhus University Hospital, Skejby, Denmark

(2)Aarhus University Hospital, Denmark

Background: Studies of risk factors of post-cesarean infections are mostly based on infections appearing during hospital stay. Objective: The aim of this study was to examine the impact of obesity and diabetes on risk of post-cesarean infections within 30 days postpartum. Infections were diagnosed during hospital stay or at visits to out-patient clinics, or post-discharge by the general practitioner. Methods: Data was collected prospectively during a nineteen month period among women undergoing cesarean sections in former Aarhus County, Denmark. Data sources were medical charts, electronic medical registries, and questionnaires filled in by the women and confirmed by the general practitioner. We identified urinary tract infections, blood stream infections, endometritis, unidentified fever, and postoperative wound infections. Definitions from the Centre of Disease Control and Prevention, Atlanta, USA, were used for identification of infections. Results: We included 2,492 women who underwent cesarean section during the study period. Of these, 161 women (6.5%) had an in-hospital infection. In the sub-cohort of 1,513 women who answered the questionnaire

5.6% had an in-hospital infection and additionally 6.3% a post-discharge infection. In the sub-cohort obesity (BMI ≥ 30) increased the risk of in-hospital infections, (adjusted odds ratio (OR) =2.06; 95% CI:1.21-3.50) and of in-hospital plus post-discharge infections (OR=1.49; 95% CI:0.99-2.25). Women with diabetes had a slightly increased risk of in-hospital infections (OR of 1.34 (95% CI 0.71-2.53)). Among women with diabetes, obesity increased the risk of in-hospital infection three-fold (OR= 3.01; 95% CI:1.37-6.61). Conclusion: Obesity substantially increases the risk of post-cesarean infections and diabetes may strengthen this association.

EP06.09 Fear of childbirth: choice of delivery

K Førslev (1), Charlotte Wilken-Jensen (2), K Hammer-Jacobsen (2)

(1)Psychiatry Region Sjælland, District Roskilde, Denmark

(2)Roskilde University Hospital, Denmark

The aims were to explore the importance of background factors in two groups of pregnant women: a) planned vaginal delivery and b) planned caesarean section MR. Methods: The study sample comprised a consecutive series of 50 women who were in their 37 week of gestation with planned vaginal delivery and 50 women with planned caesarean section MR. They were asked to participate in the investigation in the Department of Obstetrics and Gynecology, Regional Hospital in Roskilde, Denmark. The dropouts were 20 respectively 23 women, mostly because of language difficulties, delivery/caesarean section before gestation week 37, or lack of interest in the investigation. An interview- and questionnaire was designed that contained: social situation, obstetrics background, present pregnancy (background factors for choice of delivery), support from family and social network, information of delivery, thoughts about childbirth fear, somatic and mental health. Afterwards the participants were asked to fill in Wijma Delivery Expectancy/ Experience Questionnaire (W-DEQ version A). The total session was about one hour and was taken by one of the authors, (the psychologist who is trained in this, and has special knowledge and experience recording pregnancy with fear of childbirth). The women were interviewed again shortly after delivery/ caesarean section, but these data are not presented at this congress. Results: There are several differences between women in late pregnancy who planned vaginal delivery versus caesarean section MR. A statement of conclusion: It is important to become aware of pregnancy wishes and images of delivery early in the pregnancy.

EP06.10 Comparative research on effectiveness of taking care of LBW new born by kangaroo mother care and incubator methods

Faezeh Sahbaeiroy (1), M Hematyar (1), H Shafagh (1), N Sarmadi (1), M Zare (1), M Pourzadi (2)

(1)Faculty of Nursing and Midwifery, Islamic Azad University, Tehran Medical Branch, Iran

(2)Khatam-al-anbiya Hospital, Tehran, Iran

The aim of this study was to determine the heart and respiration rates, temperature and number of nutrition and vomiting, sleeping time, number of crying and crying time of low-weight newborns, after application of kangaroo mother care in case group, and incubator in control group. Method: 40 healthy low-weight newborns of both sexes were studied in two groups (case=20 and control=20). None of them had neurological, cardiac and/or respiratory deficiencies. Assessments were made after the newborn had been left in an ordinary cot for 30 minutes and after 180 minutes of kangaroo mother care, on six consecutive days in case group .and control group were in incubator for six days. For these evaluations, a sensor for pulse oximetry, a thermometer and a chronometer were utilized. Results: There were significant decreases in heart rate ($p<0.001$) after applying kangaroo mother care. However, there were significant increases in axillary temperature ($p<0.001$) and a significant decrease in respiration rate ($p<0.001$). There were significant

increases in nutrition and sleeping time ($p < 0.001$), and there were significant decrease in vomiting ($p < 0.05$), crying rate and crying time ($p < 0.05$). Conclusion: These results support earlier findings of the beneficial effects of Kangaroo mother care on promote improvement in body temperature, and decreased respiration rate (thus providing greater respiratory comfort for the newborns) and decrease heart rate. It promotes nutrition (it means increase growth rate), increase sleeping time (it helps growth and decrease stress) Kmc decrease crying time and vomiting, therefore kangaroo mother care contributes towards beneficial alterations in the low-weight newborns.

EP06.11 Maternal diabetes and risk of uterine rupture

Dorthe Louise Ahrenkiel Thisted (1), LH Mortensen (2), S Rasmussen (3), T Larsen (1), L Krebs (1)

(1) Holbaek Sygehus, Department of Gynecology and Obstetrics, Denmark

(2) National Institute of Public Health, Copenhagen, Denmark

(3) National Board of Health, Health Data, Copenhagen, Denmark

Diabetes is related to prolonged postoperative healing and increased risk of postoperative infection. Furthermore diabetes in pregnancy is related to increased risk of obstetric complications in terms of macrosomia and prolonged labor. One might presume that the incidence of uterine rupture amongst diabetic women planning vaginal birth after caesarean section (VBAC) would be increased. The aim of the present study was to investigate if maternal diabetes increases the risk of uterine rupture in woman with prior caesarean section. Methods: Cohort study based on data from the Danish National Birth Registry of all women with a singleton pregnancy planning VBAC during the period 1997-2009 ($n = 52,289$). Planned mode of delivery was classified as VBAC if the women were not delivered by elective caesarean section. Women were characterized as either non-diabetic or diabetic, with the diabetic group containing the subgroups presentational, -gestational and subsequent diabetes. Results: The incidence of diabetes was 4.74 % and uterine rupture was reported in 1.77% of women in the cohort. Rates of uterine rupture were 0.79 % in women with diabetes and 1.82 % in woman without diabetes. Thus diabetes was associated with a significantly reduced risk of uterine rupture (Relative Risk 0.44 (95% confidence limits: 0.28; 0.67) p -value 0.0001) in women with prior caesarean section and planned VBAC. Conclusion: The results are either a result of good obstetric care for diabetic women in Denmark, or a result of diabetic women failing to complete a planned VBAC. Further research are planned to explore these findings.

EP06.12 Recurrence of retained placenta at vaginal delivery: a clinical study

Sys Nikolajsen (1), T Bergholt (1), EC Leth Løkkegaard (1)

(1) Department of Obstetrics and Gynaecology, Hillerød Hospital, University of Copenhagen, Hillerød, Denmark

Background: In theory, individual factors might predispose for retained placenta, however it is poorly described in the medical literature. Objectives: To validate the clinical diagnosis of retained placenta and to estimate the risk of retained placenta in subsequent vaginal delivery, among women with a history of retained placenta at their first vaginal delivery. Methods: From January 1st 2000 to December 31st 2009, 10,334 nulliparous women with singleton pregnancies delivered vaginally at the department of Obstetrics and Gynaecology, Hillerød Hospital, University of Copenhagen. Of these, 287 women were diagnosed with retained placenta according to their medical records. 572 women without the diagnosis were selected as controls. Medical records from cases and controls were reviewed and information on pregnancy, delivery and relevant confounding variables were obtained. Strict clinical criteria for the diagnosis of retained placenta were defined and used as the golden standard. Results: The Positive Predictive Value of the diagnosis of retained placenta was 94.4%. Negative Predictive Value 95.5%, Sensitivity 37.5% and Specificity was

99.8%. Due to this low sensitivity, the estimated incidence of retained placenta increased from 2.8% (287/10.334) to 7.0% (723/10.334) after validation. After the validation the Odds Ratio of recurrence of retained placenta in vaginal delivery was estimated to be 5.5 (95% C.I: 2,5-12,0) in the multivariate analysis. Conclusions: Women with prior retained placenta at vaginal delivery had a significantly increased risk of recurrence of retained placenta at subsequent vaginal delivery.

EP06.13 Is it safe to eat and drink during labor?

Maria Stentebjerg (1), P Bor (1)

(1)Regional Hospital of Randers, Department of Obstetrics and Gynecology, Denmark

Background and objective: Views and policies about eating and drinking in labor vary widely around the world. There is an increasing trend to allow food and fluids during labor, although little scientific data about the influence on the course of labor exist. The purpose of the present paper is to review the current literature on evidence for restricting or allowing food and fluids during normal labor. The outcomes of interest are: risk of aspirations pneumonitis, labor duration, need of instrumentation, incidence of vomiting, and Apgar score. Methods: Searches for available literatures was conducted through PubMed in August 2009 and was limited to papers in English or Danish, texts with abstracts and concerning humans. By using combinations of "pregnancy", "labor" and "food" 15 relevant articles were found, 5 reviews, 7 randomised controlled trials, 2 prospective trials and 1 retrospective trial. Results: Eating and drinking in labor seems not to have significant impact on the incidence of aspiration pneumonitis or maternal death. Furthermore neonatal outcomes are not affected by oral intake during labor. However, issues, such as duration of labor, incidence of vomiting, instrumental and caesarean delivery rates are all controversial. Conclusion: Whether or not allowing food and fluid intake throughout labor is beneficial or harmful can only be determined by further research. A Nordic multi-centre randomised trial is still lacking and is required before evidence-based general recommendations with respect to eating and drinking in labor can be made.

EP07 E-poster session 7 Obstetrics Delivery 2

EP07.01 Is it necessary to continue oxytocin infusion for induction of labor after the onset of the active stage of labor?

Pinar Bor (1), S Ledertoug (1), NO Knoblauch (1), ML Ladefoged (1), I Stornes (1)
(1)Regional Hospital of Randers, Denmark

Background and objective: Even though oxytocin infusion is widely used for induction of labor, there is a few and controversial data whether it should be continued until delivery or stopped at the onset of the active phase. Thus, in the present study we investigate the effects of discontinuation of oxytocin infusion on labor outcomes after the active stage of labor is established. Method: This is a prospective randomized study. Pregnant women who undergo labor induction or augmentation are invited to participate in the study. Patients, accepting to participate are randomly divided into two groups. In the control group, infusion of oxytocin is continued until delivery. In the experimental group, infusion of oxytocin is discontinued when cervical dilatation reached 5 cm. The duration and outcomes of labor including cesarean section rate are analyzed. Results: This study is still ongoing. It is planned to include a total of 200 patients. So far 60 eligible pregnant women were invited to participate in the study, but only 42 of them accepted. The frequency of caesarian delivery is 31% in the control group versus 11% in the experimental group. Duration of the active phase of labor is longer in the experimental group (170 vs 122 minute), but this difference is not significant. Oxytocin has been restarted in 4 women (22%) in the experimental group because of arrest of labor. Conclusion: Our preliminary results suggest that early discontinuation of oxytocin decreases the caesarian delivery rate.

EP07.02 Antimicrobial prophylaxis, cesarean section, and maternal infections

Nanneli Pallasmaa (1), Ekblad (1)
(1)Turku University Central Hospital, Finland

Background: Cesarean section (CS) carries a higher risk for maternal infections than vaginal delivery. Prophylactic antimicrobial treatment is recommended in CS, especially in operations with rupture of membranes (ROM). Objective: To evaluate the impact of antimicrobial prophylaxis (AP) on the rate of maternal infections in CSs in women with intact membranes, and women with ROM. Materials and methods: Data on 2496 CSs was collected prospectively in 12 delivery units in Finland during a six month's period. Infections recorded were: endometritis, wound infection, urinary tract infection, septicemia and pneumonia. The incidence of infections was compared by the use of AP (pre-existing infections excluded) in women having CS with intact membranes and women with ROM. Results: AP was used in 48.5% of all CSs, 28% in CSs with intact membranes and 85% in CSs with ROM. Total incidence of postpartum infections was 9.2%; 7.8% in women with intact membranes and 11.6% in women with ROM ($p=0.003$). AP did not have any significant effect on the total maternal infection rate. Women with intact membranes had 8.5% vs. 6.3% infections without and with AP ($p=0.195$), and women with ROM had 12.8% vs. 11.4%, respectively ($p=0.650$). AP reduced significantly only the rate of wound infections in women with intact membranes: 4.1% vs. 1.7% ($p=0.024$). Conclusions: AP did not improve total maternal infectious morbidity in CS. AP was effective only in preventing wound infections in women with intact membranes. More studies are needed to find out to whom AP should be recommended.

EP07.03 Women's preferences on timing of elective caesarean section

Julie Glavind (1), SF Kindberg (2), TB Henriksen (2), N Uldbjerg (3),

(1)Department of Obstetrics and Gynaecology & Perinatal Epidemiology Research Unit, Clinical Institute, Aarhus University, Denmark

(2)Perinatal Epidemiology Research Unit, Clinical Institute, Aarhus University, Denmark

(3)Department of Obstetrics and Gynaecology, Aarhus University Hospital, Skejby, Denmark & Division of Maternal-Fetal Medicine, Wayne State University, Hutzel Women's Hospital, Detroit, MI, US

Background: We lack information on women's preferences on timing of elective caesarean section (C-section). Aim: 1) To compare satisfaction with timing of elective C-section in women randomized between elective C-section at 38+3 weeks (+/- 2 days) and 39+3 weeks of gestation (+/- 2 days), 2) To describe what factors women find important when scheduling an elective C-section. Design: Prospective cohort study within a randomized controlled trial of timing of elective C-section. (ClinicalTrials.gov Identifier: NCT00835003). Materials and methods: 288 women enrolled in an on-going RCT filled out an electronic questionnaire two months after elective C-section. 22 % were nulliparous and 45 % had no previous C-section. Results: Prior to their C-section 9.4 % of the women scheduled to C-section at 38+3 weeks and 26.6 % of the women scheduled to 39+3 weeks were not satisfied with their scheduled delivery date, OR 3.50 (95 % CI 1.81; 6.75). After the C-section the numbers were 26.8 % and 35.3 % respectively, with an OR of 1.48 (95 % CI 0.90; 2.45). When scheduling a C-section, the women stated doctor's recommendations and a scheduled delivery date close to due date to be important. A C-section as soon after 37 weeks as possible or a delivery date to the women's own preferences were stated as less important. Conclusion: Prior to their C-section, women are significantly more satisfied with a delivery date 9-13 days before due date, than a delivery date 2-6 days before due date. After the C-section the difference is less pronounced and non-significant.

EP07.04 Change in risk status during labor in a large obstetrical department

Tonje Lippert (1), P Øian (2), E Nesje (1), KS Koss (1), M Kristoffersen (1)

(1)Asker and Bærum Hospital, Bærum, Norway

(2)University Hospital of North Norway, and Institute of Clinical Medicine, University of Tromsø, Tromsø, Norway

Objective The study aimed to observe change in risk status during labor and report short-term outcomes for different risk groups. Method All 6408 women delivered from May 2nd 2004 to September 30th 2006 at Asker and Bærum Hospital, Norway, were allocated into low and high risk groups at admittance to hospital and during labor based on defined risk criteriae. The rates of low and high risk women and the frequency of adverse outcomes and complications for the different risk groups were analyzed. Results At admittance to hospital 62 % were low risk. Among the low risk women 47% changed risk status during the opening phase. Women in the high risk group at admittance had 15 (95 % CI 12-19) times increased risk of operative delivery and 2,1 (95 % CI 1,5-3,1) times increased risk of transfer to neonatal unit compared to women without risk factors at full opening. Women changing risk status during the opening phase had 10 (95 % CI 8-13) times higher risk of operative delivery. There were no significant differences in low Apgar score, sphincter tear, retained placenta, bleeding > 1500 ml or rupture of the uterus for the different risk groups. Conclusions Two thirds of the women were low risk at admittance hospital in labor, one third at delivery. Risk status was a strong predictor for birth outcome in an obstetrical department, especially operative delivery.

EP07.05 Medical, institutional and individual factors driving decisions towards caesarean sections in Brazil

Paulo Freitas (1), T Marshall (2)

(1)Universidade Federal de Santa Catarina, Brazil

(2)London School of Hygiene and Tropical Medicine, United Kingdom

Rational: Caesarean section is an essential component of good obstetric practice, used when specific medical indications occur. In Brazil, caesarean section is widespread as a means of delivery to the extent that it is used well beyond the level indicated by strict medical need. The main objective of this study was to investigate how medical staff, women and her social network and, the organisation of obstetric practice interact to influence decisions towards caesarean sections. Methods: A cross sectional study of 640 recently delivering women and self-structured interviews with the obstetricians in charge of their deliveries were conducted in three maternity-hospitals in South Brazil. Multivariate Analysis were used to create the hierarchical model of factors influencing the delivery by caesarean. Results: The main risk factors found were previous caesarean section, previous labour experience, experiences from the women's social network, ante-natal care with the on-duty doctor and being admitted not in labour. Conclusions: Although obstetricians are clearly key players in deciding for caesarean sections, where medical indications are not absolute, the situation is more complex and factors from women's and obstetrician's contexts including personal, institutional and non-medical issues can operate to influence decisions towards type of delivery.

EP07.06 Socioeconomic conditions mediate the risk of complications following caesarean section delivery in Brazil

Paulo Freitas (1), R Marques (2)

(1)Universidade Federal de Santa Catarina, Brazil

(2)Universidade do Oeste de Santa Catarina, Brazil

OBJECTIVES: To investigate the association between social factors and, post-partum experience and complications after hospital discharge. METHODS: A population based, cross-sectional study was conducted with a representative sample of 600 women delivering in three maternities in South Brazil. Information was gathered using home interviews and post-partum examination. The independent association between complications and type of delivery was obtained taking into account the influence of social, reproductive and individual factors from different hierarchical levels. RESULTS: Post-partum complications, both physical and emotional showed to be associated with lower socioeconomic conditions and, appeared twice more frequently among women delivering by caesarean section ($p < 0,01$). The effect of low socioeconomic conditions on post-partum complications were mainly explained by mode of delivery by caesarean section, longer duration of delivery among women from the lowest socioeconomic group - even in the presence of medical indications for caesarean section - and, lack of social support when returning home after delivery. CONCLUSIONS: Results from this study showing that post-operative complications can impact adversely mainly those women living in the worst social and health conditions, should be taken into account before decisions are made.

EP07.07 Fast-track methodology shortens hospital stay after cesarean section

Johanna Gunnarsdottir (1), TE Björnsdottir (1), K Jonsdottir (1), RT Geirsson (1,2)

(1)Landspítali University Hospital, Iceland

(2)University of Iceland, Iceland

Objective: To monitor whether implementation of fast-track methodology shortens hospital stay after elective cesarean section without increasing readmissions, and characterize factors influencing length of stay. **Methods:** An enhanced recovery (fast-track) program with predefined discharge criteria was initiated in 2008 for women with singleton pregnancy and monitored for one year until October 2009. This included midwife home visits after discharge <48 hours. Reasons for longer stay, maternal characteristics, time to ambulation and oral nutrition, and use of anti-emetics were recorded. **Retrospective data** from the full years 2003 and 2007 were used for comparison. **Result:** The median hospital stay decreased from 81 to 52 hours between 2007 and 2008-9, and 66% could be discharged <48 hours. Readmissions were 4 in each period. Hospital stay for parous women was shorter in 2007 compared to 2003, but unchanged for nullipara. Parity had minimal influence on length of stay when shortened even more in 2008-9, although nulliparous women >25 years were more likely to stay over 48 hours. BMI did not correlate with length of stay even though only half had normal BMI (18.5-25). There was a trend towards earlier oral nutrition in women discharged <48 hours (4 vs. 5 hours, $p=0.11$), 11% received anti-emetics and among those who did not, first oral nutrition was earlier (4 vs. 6 hours $p=0.02$). **Conclusion:** Early discharge is possible after cesarean section and not influenced by BMI. A parity difference was not of clinical significance, except for women >25 years. Readmissions are not increased.

Paper no 107 Fig 1 and 2

Table 1: Hospital stay of women with singleton pregnancies having elective cesarean section after starting fast-track program in Nov 2008 compared to full years 2003 and 2007. Difference between years was tested using Kruskal-wallis and Wilcoxon rank test.

Elective cesarean sections Singleton births	2003	2007	Nov 2008- Oct 2009	p-value overall	p-value 2007 vs. 2008-9	p-value 2003 vs 2007
Nulliparous women						
Number of women	33	40	37			
Hospital stay (median, hours) 25 - 75 percentile (hours)	101 98 - 123	102 78 - 120	53 50 - 80	<0.0001	<0.0001	0.50
Parous women						
Number of women	166	143	176			
Hospital stay (median, hours) 25 - 75 percentile (hours)	100 80 - 102	81 76 - 102	52 48 - 79	<0.0001	<0.0001	0.001
All women						
Number of women	199	183	213			
Hospital stay (median, hours) 25 - 75 percentile (hours)	100 83 - 103	81 76 - 103	52 49 - 79	<0.0001	<0.0001	0.003

Figure 1: Early discharge after singleton births with elective cesarean section in Nov 2008 - Oct 2009. 182 women of total number 213 were eligible for early discharge. Discharge within 48 hours from birth is followed by home visits from a midwife. Reasons for staying longer are listed below.

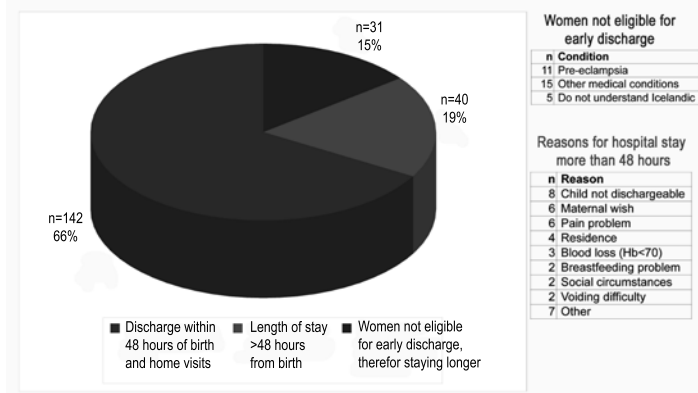
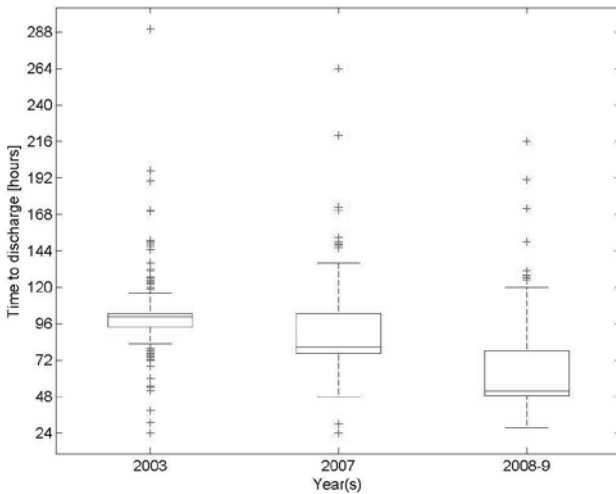


Figure 2: Decreased hospital stay of women with singleton pregnancies having elective cesarean section. Enhanced recovery program initiated in November 2008.



EP07.08 Monochorionic versus dichorionic twin births: caesarean section or vaginal delivery

Elise Hoffmann Munk Nielsen (1), A Oldenburg (1), L Rode(1), B Bødker (2), V Ersbak (3), A Holmskov (4), FS Jørgensen (5), H Larsen (6), T Larsen (7), Lone Laursen (8), H Mogensen (9), OB Petersen (10), S Rasmussen (11), L Skibsted (12), L Sperling (13), I Stornes (14), H Zingenberg (15), A Tabor(1)

(1)Department of Fetal Medicine, Copenhagen University Hospital, Rigshospitalet, Copenhagen, Denmark

(2)Department of Obstetrics and Gynecology, Hilleroed Hospital, Hilleroed, Denmark

(3)Department of Obstetrics and Gynecology, Silkeborg Hospital, Silkeborg, Denmark

(4)Department of Obstetrics and Gynecology, Viborg Hospital, Viborg, Denmark

(5)Fetal Medicine Unit, Department of Obstetrics and Gynecology, Hvidovre University Hospital, Hvidovre, Denmark

(6)Department of Obstetrics and Gynecology, Aalborg University Hospital, Aalborg, Denmark

(7)Department of Obstetrics and Gynecology, Holbaek Hospital, Holbaek, Denmark

(8)Department of Obstetrics and Gynecology, Odense University Hospital, Odense, Denmark

(9)Department of Obstetrics and Gynecology, Soenderborg Hospital, Soenderborg, Denmark

(10)Department of Obstetrics and Gynecology, Aarhus University Hospital Skejby, Aarhus, Denmark

(11)National Board of Health, Health Statistics, Copenhagen, Denmark

(12)Faculty of Health Sciences, University of Copenhagen and Department of Obstetrics and Gynecology, Roskilde Hospital, Roskilde, Denmark

(13)Department of Obstetrics and Gynecology, Herlev Hospital, Herlev, Denmark

(14)Department of Obstetrics and Gynecology, Randers Hospital, Randers, Denmark

(15)Department of Obstetrics and Gynecology, Glostrup Hospital, Glostrup, Denmark

Objective: In spite of the increasing rate of twin pregnancies, there is no consensus regarding the optimum mode of delivery for monochorionic diamniotic (MC) and dichorionic diamniotic (DC) twins. The aim of this study was to describe mode of delivery in a Danish cohort of twin pregnancies, according to chorionicity, gestational age, and parity. Methods: A population-based cohort was retrieved from local ultrasound databases at 14 obstetric departments in Denmark, comprising all twin pregnancies, with two live foetuses, at 32 completed weeks of gestation. Outcome data were retrieved from the National Board of Health. The twin-births were divided into three groups according to their intended mode of delivery: Planned

spontaneous vaginal birth, planned induced vaginal birth and planned caesarean section. Outcome variables were: cord artery-pH, 5-min-Apgar, admission to the neonatal unit, and perinatal death. Results: Among 1759 live twin pregnancies at 32 weeks of gestation, 1549 (88.1%) were DC, and 210 (11.9%) were MC. The average gestational age at delivery was slightly higher in DC twins (258.2 days) compared to MC twins (254.6 days). While 60.2% of DC twins were delivered at 37 weeks or later, this was only the case for 45.7% of the MC twins. The single most defining factor for pH outcome is whether the child is first or second born. For both MC and DC twins, twin-B has a better outcome when delivered by caesarean section. It is noticeable that the inter-twin-time dependent decrease in pH is more apparent for MC twins than for DC twins.

EP07.09 Risk of shoulder dystocia: does the impact of offspring birth weight differ by parity ?

Eva Astrid Øverland (1), L Vatten (2), A Eskild (1,3)

(1)Akershus University Hospital, Lørenskog, Norway

(2)Department of Public Health, NTNU, Trondheim, Norway

(3)Medical Faculty Division University of Oslo, Norway

Shoulder dystocia is an infrequent, but dramatic obstetric situation with a potential fatal outcome for the child. Fetal morbidity rate is high and even fetal death may occur. Maternal complications are not uncommon. Because of the emotional and physical trauma associated with shoulder dystocia, reliable knowledge of risk factors is important. Fetal macrosomia is the most distinctive risk factor for shoulder dystocia. However, most authors claim shoulder dystocia is an unpredictable event and that the majority of cases of shoulder dystocia occur in situations without any known risk factor. Objective: Our aim was to estimate the absolute and relative risk of shoulder dystocia according to parity and offspring birth weight. Study design: A population study including all women in Norway with vaginal delivery of a singleton offspring with cephalic presentation during the period 1967-2005 (n=1 992,048). Results: Shoulder dystocia occurred in 0.7 % of all deliveries. The incidence was lowest (0.5%) among first time mothers and highest (0.8%) among those who gave birth for the second time. High offspring birth weight was the most important risk factor for shoulder dystocia, and the estimated impact of birth weight was similar regardless of parity. Conclusion: The risk of shoulder dystocia was lowest for first time mothers. The risk of shoulder dystocia increased considerably by offspring birth weight regardless of parity but the impact of birth weight was similar regardless of parity. The majority, 75%, of all cases of shoulder dystocia happen when the offspring birth weight is high.

EP07.10 Caesarean section, forceps and vacuum from 1990 to 2009

Susanne Albrechtsen (1)

(1)Haukeland Universitetssykehus, Norway

Objectives: Mode of delivery, either caesarean section, forceps or vacuum, in standard population groups, at a single delivery department during a study period of 20 year. Methods: A descriptive study of the delivery method used in different standard population groups (Robson group 1 to 5). Results: The overall change in the study period has been limited. The proportion of caesarean section reached a maximum of 14.5% in 2001 but has declined to 10.4% in 2009. The decline was explained by a reduced number of caesarean section in almost all standard population groups except women at term with a previous vaginal birth and a spontaneously started birth. From 1990 to 2009 the proportion of caesarean section in women with a previous caesarean delivery declined. There was found a small decrease of forceps deliveries until 2003 afterwards the proportion increased in all five standard population groups. The proportion of women delivered by vacuum has been almost unchanged in the study period. The highest proportion of vacuum deliveries was found in primipara delivered at term. Those who had an induced labour were more likely to be delivered by vacuum than those with a spontaneously labour start. Conclusion: At our delivery department the mode of delivery has changed in different standard population groups, but the overall proportion was only slightly altered in the last twenty years.

EP07.11 Skin-to-skin contact during cesarean section and the first postoperative hours

Gro Nylander (1), SH Kongsrud (1), G Areklett (1), K Hellenes (1), K Forfang (1)

(1)The National Resource Center for Breastfeeding /Dept. of Obstetrics, The Women's Clinic, Rikshospitalet, Oslo University Hospital, Norway

Scientific evidence for favourable effects of skin-to-skin contact (STS) in the post-partum period is the motivation behind this 'Cesarean-STS' project. Procedure: After delivery the newborn is placed across mother's chest, where it stays STS for the rest of the operation, during transport to Recovery and the time spent there. Father looks after the baby. After two hours the family goes to Maternity. Preparation of staff at depts. of Recovery, Anesthesiology, Obstetrics, Maternity, NICU and Operating theatre went on for months. Key persons from the departments most involved produced written information, procedures and questionnaires for evaluation. Obstetrics is formally responsible for infants accompanying their mother. Parents are prepared during a consultation and in writing. It is stressed that STS may not be possible if any complications arise. Results show that all mothers offered the opportunity wanted STS, and most of them went through with it according to protocol. A normal number of infants were transferred to NICU. Evaluation was by questionnaires to parents and key-personell and informal interviews with other departments. All mothers were enthusiastic, not least those with a previous caesarean without STS. A few fathers had felt a bit worried about the responsibility, but even those were very content. Staff were mainly positive. No doctors reported misgivings. A follow-up by telephoneintervju in 2009 with 20 randomly selected mothers 2-4 months post-partum disclosed only positive comments about their experience. In conclusion 'Cesarean STS' has now become the standard procedure at this hospital, for planned cesareans with an expected normal outcome.

EP07.12 Acupuncture before induction of labour. A prospective randomised controlled trial

Bodil B Andersen (1), D Illum (1), NJ Secher (1), M Johansen (2), AE Fælling (2), A Borgen (2), B Knudsen (3), H Jager (3), C Bjerre (3), J Lyndrup (3)

(1)Hvidovre University Hospital, Denmark

(2)Odense University Hospital, Denmark

(3)Roskilde University Hospital, Denmark

Objective: To evaluate acupuncture in comparison with sweeping of fetal membranes before induction of labour at 294 days of gestation. Methods: 412 women, 290 days pregnant (according to ultrasound) after uncomplicated pregnancy with cephalic presentation, were randomised to: 1. Acupuncture, 2. Sweeping, 3. Acupuncture and sweeping and 4. CTG only. Acupuncture needles were applied in points GV20, bilaterally in LI4, ST36, LR3, BL31, BL32, BL60 and right SP6, with electro stimulation on BL31, BL32 and SP6. Needles were left for 30 minutes. If sweeping was not possible, cervical massage was performed. The women were induced if not delivered at 294 days. Results: Acupuncture compared to CTG, showed no difference in numbers of women delivering before 294 days (45/104, 43% versus 42/104, 40%; $p = 0.673$). Sweeping compared to CTG, were followed by significantly more women in labour before 294 days (63/105, 60% versus 42/104, 40%; $p = 0.005$). Acupuncture combined with sweeping compared to CTG, also showed significantly more women in labour before 294 days (54/99, 55% versus 42/104, 40%; $p = 0.043$). Sweeping compared to acupuncture, likewise showed significantly more women in labour before 294 days (63/105, 60% versus 45/104, 43%; $p = 0.0187$) No difference was found in frequency of operative delivery and post partum haemorrhage, nor in neonatal outcome. Conclusion: No effect of acupuncture at 290 days of gestation was found in reducing the need for induction at 294 days. In contrast, sweeping of membranes, was proven efficient, by reducing the number of women needing induction, with 15-20%.

EP08.01 Frequency of sexual dysfunction and related factors in women

Eftekharalsadat Hajikazemi (1), M Hossaini (2)

(1)Iran university of medical sciences & health services(IUMS), Iran

(2)Sari university of medical sciences, Iran

Background: Prevalence of sexual dysfunction in many of societies is high and there are several factors that have important role on this issue. Sexual dysfunction has negative effect on women and family health. This study has aimed to determining the frequency of sexual dysfunctions and related factors in women referred to health centers of Sari city. Method & material: This was a cross-sectional study, in which questionnaires FSFI (Female sexual function Index) were used for data gathering. Sample size was 899 women and sampling method was by multi stages. T-test and χ^2 used for analyse. Results: Regarding findings, 45.2% of the women had sexual dysfunction. Frequency of this dysfunction for sexual desire, excitement, lubrication, orgasm, dyspareunia were respectively 39.6%, 35.5%, 39.8%, 42.7% and 47.3%. We also found that dysfunction were mostly related to the age gap with husband ($p=0.02$), permanent fatigue ($p=0.000$), disagreement of the time of having sex ($p=0.000$). Conclusion: considering the results, finding interventions to prevent the factors that interfere with healthy and happy sexual life is of great importance. Healthy and happy families are the consequences of a good intervention in this issue. Safe sexual function in families is very important, because couples physical psychosocial healthy are related to sexual function. We suggest more study about cause of sexual dysfunction in women. Key words: women sexual dysfunction, dyspareunia, personal and familiar factors

EP08.02 24h urinary Prolactin to differentiate normal persons from micro adenoma from macro adenoma: Prolactinoma is a natural family planning technique

Kiumars Pirkalaji (1), Z Talae Rad (1)

(1)Mehr Medical Group, Department of Endocrinology/Gynecology, Tehran, Iran

Objective: To define the clinical significance of prolactinoma and find more reliable laboratory markers for it and differentiate spurious hyperprolactinemia from real prolactinoma we tried to use the 24UP. Materials and Methods: Seventy four normal patients were compared with 12 hyperprolactinemia of unknown significance and 38 confirmed prolactinoma for 24UP, and corrected for urine volume and Creatinin clearance. HPUS and confirmed prolactinoma were defined as elevated blood prolactin level with 0-1 and all three criteria of amenorrhea, galactorrhea and headache respectively. Blood and urine samples were evaluated with highly sensitive ICT. Prolactinoma patients were evaluated with dynamic MRI of the sella turcica. Results: The mean and range of 24UP and concentrations and corrected for volume and Creatinin clearance were distinct among the three groups with 11-17, 14-38 and 26-49 microgram/d respectively. 24UP can differentiate macro from micro adenoma but this did not reach statistical significance because of small number. Conclusions: 1. 24UP is the best marker for differentiating spurious/physiological hyperprolactinemia from Prolactinoma and micro from macroadenoma. 2. It abolishes the need for MRI in 90%. 3. Blood levels do not reflect total prolactin output as glomerular filtration and tubular excretion cause extreme aberration in its dynamics. 4. High prevalence of prolactinoma in unselected autopsy series (6-28%) and the spontaneous remission in 90% on 7.5 years follow up mean that micro adenoma is not an autonomous tumor growth. It is a natural adaptive mechanism for contraception in terms of a sophisticated family planning of the nature.

EP08.03 Posterior vaginal wall leiomyoma. A case report

Marie Sørensen (1), P Chauhan (1)

(1)Herlev Hospital, Copenhagen, Denmark

Vaginal wall leiomyomas are rare and are typically located on the anterior or the lateral wall of the vagina. They typically present with urinary tract pressure symptoms, leucorrhoea, pelvic pain or a protruding vaginal mass. We describe a case of a 30 years old nullipara who was followed in the gynaecology department for over one year under the suspicion of malignant cervical tumour. Since several biopsies showed benign tissue the treatment was delayed. Ultimately examination under anaesthesia and histology revealed a five cm large posterior vaginal wall benign leiomyoma which was vaginally excised in toto. Diagnosis of a vaginal wall fibroid is based on strong clinical suspicion of this condition since they are slow growing tumours. Routine vaginal ultrasound may be insufficient. Pelvic MRI or trans labial ultrasound are more useful modalities. Since an incidence of malignant changes are reported to be up till 9.1%, especially under pregnancy, complete removal and a close follow up is mandatory.

EP08.04 Transvaginal ultrasonography of rectal endometriosis

Anne Egekvist (1), M Seyer-Hansen (1), A Forman (1)

(1)Aarhus University Hospital Skejby, Dep. of Gynecology and Obstetrics, Denmark

Objectives: The aim of this present study was to evaluate the interobserver variation of transvaginal ultrasonographic measurements of endometriosis infiltrating the rectosigmoid wall. Methods: Transvaginal ultrasonography was performed independently by two observers. Observer 1 had several years of experience in ultrasonography while observer 2 was a medical student with no prior experience in ultrasonography or endometriosis. In 24 patient length, width and depth of endometriosis infiltrating the rectosigmoid bowel was measured. The differences between the observers were analysed by Bland and Altman plots with 95 % limits of agreement. Results: No systematic differences were found between the observers. Probabilities for differences to lie within 30 % of the mean was 0.81, 0.63 and 0.61 for the length, width and depth respectively. Ninety-five percent limits of agreement was 0.64 -1.87, 0.54 - 1.69 and 0.56 - 1.87 for the length, width and depth respectively. Conclusions: We found no systematic differences between a routined and an untrained observer regarding estimation of size of endometriotic lesions in the rectal wall. This indicates that systematic training in transvaginal ultrasonography for a relatively short period gives comparable scanning results between the two observers. It seems that transvaginal ultrasound could be used as a diagnostic tool for rectal endometriosis in most departments. However, the irregular morphology of the lesions makes the measurements very complex, and a strict standardized protocol is needed.

EP08.05 Long-term follow-up after HydroTherm Ablation treatment for menorrhagia

Elise Hachmann-Nielsen (1), M Rudnicki (1)

(1)Roskilde Hospital, Department of Obstetrics and Gynecology, Roskilde, Denmark

Objective: To analyze the long-term efficacy of HydroTherm Ablation (HTA) in women with or without submucous myoma. Subject and Methods: A retrospective study on HTA performed in the period 2004-2008. In total 206 patients underwent the procedure. All patients had a specific questionnaire submitted regarding questions related to postoperative bleeding patterns, complications and satisfaction with the procedure. In total 176 (85,4%) resubmitted (132 without and 44 with submucous myoma) the questionnaire. The HTA procedure was performed in agreement with previous descriptions. Results: The follow-up period was in average 28 months, range 2-57 month. The average size of the submucous myomas was 3 cm. Among patient without myoma 16 (12,3%) had a hysterectomy compared to 6 (14%) in the myoma group mainly

due to menorrhagia (50% in each group). In the remaining patients amenorrhoea was obtained in 83 (63%) and 27 (61%), respectively among women without and with myomas. Light bleeding was observed in 36 (27%) and 11 (25%). Failure was observed in 13 (10%) and 6 (14%). Quality of life was assessed as much improved in 83% and 79%. Conclusion: Our results demonstrate a higher success rate in patients with submucous myomas than previously reported. The present study suggests that HTA may be used in women with menorrhagia irrespective of the presence of submucous myoma or not.

EP08.06 Imperforate hymen – an easily overlooked diagnosis

Rikke Guldborg (1), P Ravn (1)

(1)Odense University Hospital, Department of Obstetrics and Gynecology, Denmark

Objectives: Imperforate hymen (IH) is a congenital anomaly which is usually asymptomatic until puberty. The aim of this study was to identify most frequent primary symptoms of IH and to emphasize the importance of knowledge of this diagnosis. Methods: A review of the literature and medical records from Odense University Hospital (OUH) during 2000-2009. Results: Case reports from different scientific journals and 5 medical records were obtained. Primary symptoms were most frequently lower abdominal pain and urinary retention. These symptoms were frequently mistaken as signs of other diagnoses. In spite of that hematocolpos can easily be diagnosed by inspection of the vulva this objective sign is often forgotten in the primary investigations. Correction of IH by incision is easily performed with few complications. Conclusion: IH is easy to diagnose when the doctors have IH in mind. However, it is often overlooked and many unnecessary investigations and even unnecessary surgery may be performed. Acute urinary retention in an adolescent girl is a common sign of IH.

EP08.07 Adipose expression of leptin and adiponectin and IL-6, and plasma levels of adipocytokines in women with polycystic ovary syndrome (PCOS)

Pernille Fog Svendsen (1), M Christiansen (2), P Hedley (2) L Nilas (1), S Pedersen (3) S Madsbad (1)

(1)Copenhagen University Hospital, Hvidovre, Denmark

(2)Statens serum institut, Denmark

(3)Århus Universitetshospital, Denmark

Background: Adipocytokines may play a role in the pathophysiology of polycystic ovary syndrome (PCOS). Objective: To investigate the mRNA expression of adiponectin, leptin and IL-6 in adipose tissue, and plasma levels of leptin, adiponectin, resistin, visfatin and TNF- α in women with PCOS. Design: Cross sectional study. Subjects: Thirty six women with PCOS, 17 lean (LP) and 19 obese (OP), and 24 age and weight matched controls 8 lean (LC) and 16 obese (OC). Subcutaneous adipose tissue and fasting plasma samples were collected from 60 women. Insulin sensitivity was evaluated by euglycemic hyperinsuliemic clamp and homeostatic model assessment insulin resistance index (HOMA-IR). Dual X-ray absorptiometry (DEXA) scan was used for evaluation of body composition. The main outcome measures were: mRNA expression of adiponectin, leptin and IL-6 in adipose tissue, and plasma levels of leptin, adiponectin, resistin, visfatin and TNF- α . Results: There was a trend towards increased mRNA expression of leptin ($p=0.08$) in PCOS, and PCOS was associated with a trend towards higher plasma levels of resistin ($p=0.09$). Obesity was associated with increased mRNA expression of leptin ($p<0.01$), lower expression of adiponectin ($p<0.0001$), a trend towards increased expression of IL-6 ($p=0.09$), and increased plasma levels of leptin ($p<0.001$). Conclusion: There is a trend towards increased expression of leptin in PCOS, but no effect of PCOS on adiponectin expression and circulating adipocytokines. Obesity is associated with increased adipose expression and plasma levels of leptin, lower expression of adiponectin and marginal elevated expression of IL-6.

EP08.08 Existential experiences among Swedish women after induced abortion

M Liljas Stålhandske (1), Maria Ekstrand (2), T Tydén (2)

(1)The Centre for the Study of Religion and Society, Uppsala university, Uppsala, Sweden

(2)Department of Public Health and Caring Sciences, Uppsala university, Uppsala, Sweden

Sweden has the highest abortion figures in the Nordic countries with more than 35,000 abortions each year. Psychological distress after abortion is uncommon, but current research shows that the abortion decision may comprise strong and contradictory emotions, sometimes related to questions of existential significance. However, abortion-related existential experiences have not yet been systematically studied. The aim of this study was to investigate existential experiences in relation to induced abortion. Eighteen women, aged 21-38, with experience of abortions participated. We used semi-structured interviews with questions about decision-making, abortion process, social support and feelings, thoughts and acts. The interviews were analysed with latent content analysis. Existential questions concerning life and death, self-understanding, meaning and morality were found. Existential issues appeared in all interviews. However, this implied neither that the decision was difficult, nor that the women were unsatisfied with their abortions. Four different existential strategies were found showing how the women tried to deal with the existential questions through (1) narrative practices (sharing their experiences), (2) cognitive practices (protecting themselves from difficult emotions), (3) meaning-making practices (finding ways to understand the event), and (4) symbolic-ritual practices (dealing with the experience in bodily or expressive ways). The study contributes with knowledge about women's existential experiences and needs in relation to induced abortion, showing that the existential aspects of abortion affect the wellbeing of aborting women. The existential aspects of abortion are seldom acknowledged within the clinical context. The study offers perspectives to understand and tools to deal with this dimension.

EP08.09 Who are the young women who have induced abortion? First results from a study on Denmark in 2009

Charlotte Wilken-Jensen (1), LB Knudsen (2)

(1)Roskilde hospital, Denmark

(2)Aalborg university, Denmark

In this paper we report from a hospital-based questionnaire study conducted in Denmark from April 1st to November 30 2009. The project was initiated by the national Board of Health with the aim of improved targeting of preventive activities in relation to induced abortion among young women. The study population consists of a total of approximately 1200 women aged 15-24, living in Denmark and requesting interruption within the 12 weeks limit, as defined by the Danish law. Previous studies in Denmark have documented that young women who choose abortion instead of giving birth often report that they are single, or having problems with their partner, undergoing education or feeling too young to establish a family with a child. Further it has been shown that women who's life situation resembles the situation of those who plan to give birth, are more prone to choose to have the child in case of unintended pregnancy. We present some basic socio-demographic characteristics, e.g. age (in single year), country of origin, family situation, parity and age of children, if any, of the young aborting women and compare with the population of women of same age in Denmark, who do not have an abortion.

EP09.01 Is labial surgery indicated?

Ulla Jeppesen (1), A Højgaard (1)

(1)Regionshospitalet Randers, Denmark

The demand for cosmetic labial surgery is increasing in Denmark. Our aim of this paper is to present data on the development of cosmetic labial surgery and to discuss the indications for treatment. Method: From the Danish National Board of Health we have extracted data on number of patients admitted with the diagnosis Hypertrophica vulvae DN906 in the 4-year-period 2006 – 2009 and the number of performed labial surgery KLFC00 and KLFC96 (vulvae resection) in Region Midt, Denmark which has a population of 1.2 million. Results: There has been an increase in labial surgery from 65 in 2007 to 72 in 2008 and 83 in 2009, representing an increase of 27.7 percent in two years. Conclusion: Although surgical cosmetic correction of female genitalia, except surgery with a therapeutic issue has been prohibited in Denmark since 2003 (Criminal act § 245a) the perceived need of labial reduction is increasing. Discussion: Apparently navigating between the law and patient demands implies professional challenging difficulties. Do women have such problems with hyperplasia labia, that it recommends surgery on medical, psychological or functional indications? Are there objective criteria for surgery or is it a question of the physician's subjective assessment?

EP09.02 Combination of serum human chorionic gonadotropin ratio, progesterone, and inhibin a for the diagnosis of pregnancies of unknown location

Huda Majeed (1), A Højgaard (1), P Johannesen (1), ML Ladefoged (1), P Bor (1)

(1)Regional Hospital of Randers, Denmark

Objective: Pregnancy of unknown location (PUL) is defined by a positive serum hCG without signs of intra- or extrauterine pregnancy on a transvaginal sonography. The aim of this study is to evaluate the value of combining serum hCG ratio, progesterone, and inhibin A to predict pregnancy outcome. Method: Prospective observational study. Patients diagnosed with PUL at their first visit were included. HCG ratio (hCG 0 / hCG 48 hours), progesterone and inhibin A were determined. Accordingly, 3 groups; i) low risk group who have a failing PUL, ii) intrauterine pregnancy iii) high risk group including extrauterine pregnancy or missed abortion, needing intervention, were established. All PUL were followed-up until final true diagnosis is established. Results: One hundred and five women were included. The final pregnancy outcomes were: failing PUL (n=37, 35%), intrauterine pregnancies (n=32, 30%) and high risk group including extrauterine pregnancies or missed abortions (n=36, 34%). Using a cut-off <0.79 on the hCG ratio at presentation to predict failing PUL corresponded to an average sensitivity of 74% and a specificity of 100% (PPV 100%, NPV 81%). HCG ratio combined with progesterone, at a cut-off >1.35 and >35 ng/ml corresponded to a sensitivity and specificity of 92.3%, and 98.4% respectively (PPV 97.3%, NPV 95.5%). Conclusion: Our preliminary results suggest that combination of hCG ratio, s-progesterone and s-inhibin A is useful to identify patients at high risk for intervention or extrauterine pregnancy. In perspective the patients identified as having a low risk can avoid unnecessary multiple clinic visits and further treatment.

EP09.03 The effect of anti-inflammatory treatment on experimentally induced endometriosis in mice

Anne Søjbjerg (1), MR Pedersen (2), L Wogensen Bach (3), A Forman (1)

(1)Århus Sygehus, Skejby, Gynecology and obstetrics dep. Y, Denmark

(2)Regionshospitalet Viborg, dep. Y, Denmark

(3)Århus Sygehus Nørrebrogade, Forskningslaboratoriet for biokemisk patologi, Denmark

Background: Development of endometriosis is promoted by inflammation. Earlier studies have concluded that statins have anti-inflammatory effects. Thus these agents can theoretically be used for medical treatment of endometriosis. Objectives: 1) To establish an experimental endometriosis model in mice 2) To test the possible effect of statins on surgically induced endometriosis in mice. Methods and materials: Study 1: After removing the uterus and ovaries endometriosis was induced in 12 mice. The mice were divided into two groups: Group 1 received oestrogen substitution and group 2 received no treatment. After three weeks blood oestrogen levels were measured and the uptake was verified. The endometriotic lesions were evaluated histologically and morphologically. Study 2: The induction of endometriosis in 16 mice was identical to that in study 1. All animals received oestrogen substitution and were divided into two groups: Group one was treated with simvastatin in the drinking water, whereas group two received no treatment. After three weeks the mice were euthanized and histological and morphological evaluation of the lesions was performed. Results: Study 1: The surgical induction of endometriosis was successful, but unexpectedly there was no significant difference in the size of the endometriotic lesions in the two groups. Study 2: No significant difference in size and histology was found between the two groups. Conclusions: We established a method for inducing endometriosis in mice that allowed reliable quantification of the lesions. Our study found no indications that simvastatin effects the early invasion of endometriotic lesions in the mouse model.

EP09.04 Long-term effects of combined oral contraceptive use on weight gain in the same women followed during a 25-year period

Ingela Lindh (1), A Ellström (1), I Milsom (1)

(1)Institute of Clinical Sciences, Sahlgrenska Academy, Sweden

Objectives: To study the relationship between the duration of combined oral contraceptive (COC) use and weight gain in the same women followed prospectively from 19-44 years of age.

Material and methods: In 1981 a postal questionnaire regarding the use of contraception, reproductive health, smoking, weight/height was sent to a random sample (n = 656) of 19-year old women resident in the city of Gothenburg, Sweden. The responders were contacted again every 5th year from 1986-2006 in order to follow changes in contraceptive use, smoking, exercise and weight over time.

Results: The questionnaire was returned on all six occasions by 286 women (25 yr response rate 44%) and 282 of these women answered all the questions about months of COC use, children, smoking, exercise, weight/height and these women were included in the analyses. The women (n = 282) had increased their weight/body mass index (BMI) by 10.6 kg/3.7 respectively between 19 and 44 years of age. Women using COC for ≤ 4 (n = 80), $>4-8$ (n = 58), $>8-12$ (n = 55) and >12 years (n = 55) increased their body weight (kg)/BMI (mean (95% confidence interval) by: 8.8 (6.8-10.8)/3.1(2.3-3.8), 10.6 (7.9-13.2)/3.8 (2.8-4.7), 11.2 (8.0-14.4)/3.8(2.6-4.9), 11.8 (8.8-14.9)/4.2(3.1-5.3) compared to 9.0 (4.8-13.2)/3.2(1.6-4.8) in women with no use at all of COC during the 25 year period (n = 13) (NS). The mean number of children, smoking or exercise between groups was not significantly different.

Conclusion: Weight gain was not correlated to months of COC use.

EP09.05 Selection of evaluators in surgical assessment

Jeanett Østergaard (1), CR Larsen (1), T Grantcharov (2), B Ottesen (1), J Sørensen (1)

(1)Juliane Marie Center for children, women and reproduction, Copenhagen, Denmark

(2)St. Michaels Hospital, Division of general surgery, Toronto, Canada

Background The aim of this study was to investigate at which educational level a doctor is able to assess a laparoscopic operation on the basis of a validated assessment scale 'Objective Structured Assessment

of Laparoscopic Salpingectomy' (OSA-LS) (Larsen CR et al BJOG 2008;115(7):908-16). Furthermore we investigated whether inexperienced evaluators could assess as well as a gold standard assessment. Method Eight 4th year residents and ten senior consultants in gynaecology received three videotaped laparoscopic operations (salpingectomies) to assess on the basis of OSA-LS. These three operations were on different educational levels: novice, intermediate and expert. The gold standard assessment was calculated as a mean score of assessments from two expert assessors with a minimum of 50 assessments each. Results Data showed that the two groups were equally good at assessing the three operations. Compared to the gold standard assessments, only the intermediate operation was significant. In the novice and the expert operation, the two groups did not meet the gold standard assessment. One and two sample Wilcoxon test was used. Conclusion 4th year residents and senior consultants are equally good at assessing videotaped laparoscopic operations on the basis of an assessment scale. They are not as good as a gold standard. Take home message Doctors on widely different educational levels can assess laparoscopic operations.

EP09.06 Increased sexual risk taking among female university students in Sweden

Maria Palmqvist (1), M Larsson (1), T Tydén (1,2)

(1)Department of Women's and Children's Health, Uppsala University, Uppsala, Sweden

(2)Department of Public Health and Caring Sciences, Uppsala University, Uppsala, Sweden

Aim: To investigate sexual behaviour and use of contraceptives among female university students and compare the findings with surveys from 1999 and 2004. Methods: Waiting-room questionnaires to female university students (n=350) visiting a Student Health Centre in Sweden. Results: Almost all students had experienced intercourse (99 %) and oral sex (97 %). Condoms were most often used at first intercourse (76 %), and combined oral contraceptives at latest intercourse (54 %). Anal sex had become more common; 39 % compared to 32 % in 2004 and 27 % in 1999, but only 23 % always used a condom during anal sex. The use of the emergency contraceptive pill (ECP) had increased; 67 % of the female students had ever used it, compared to 52 % in 2004 and 22 % in 1999. Eight percent of the women had undergone an induced abortion. There was a tendency towards more risk-taking with more sexual partners; 11.0 compared to 7.4 in 2004 and 5.4 in 1999, more experience of first-date intercourse without using a condom; 65 % compared to 45 % in 2004 and 37 % in 1999, and more sexually transmitted infections (STI); 29 % compared to 21 % in 2004 and 14 % in 1999. Conclusions: There is a continuous trend towards more risky sexual behaviour with more sexual partners, more unprotected sexual activities such as first-date intercourse and anal sex, more STIs, and more use of ECP.

EP09.07 Genome-wide linkage disequilibrium mapping of uterine fibroids in Finland

Outi Uimari (1), P Lahermo (2), M Ryyänen (1)

(1)Obstetrics and Gynecology Clinic, Oulu University Hospital, Finland

(2)Institute for Molecular Medicine Finland, University of Helsinki, Finland

Objective: Uterine fibroids are a relatively common, multifactorial disorder and the most common reason for hysterectomy. There are no known disease-associated chromosome loci. There are some susceptible genes, but so far, no linkage has been reported. To find novel susceptibility genes for uterine fibroids, we performed a population-based genome-wide search using linkage disequilibrium (LD) mapping. Method: One hundred forty-seven patients with uterine fibroid and 129 relatives without the condition were carefully chosen from the same geographic area in eastern and northern Finland, where the population is descended mainly from a small group of original founders. These subjects were initially genotyped with 380 polymorphic microsatellite markers, 10 centiMorgans apart, and a fine mapping analysis was performed with additional microsatellite markers for those chromosome loci found to be associated with uterine fibroids. Results: Initial genome-

wide screening revealed seven chromosomal loci associated with uterine fibroids, but the association was not significant. The best chromosomal loci was 10q23.33 with lod score of 1.14. In that region there are four genes: 1) centrosomal protein, 55-KD, 2) EXOC6, 3) RNLS and 4) Folic acid-type, FRA. Conclusions: These genome-wide LD screening data suggest that several uterine fibroid-associated chromosomal loci exist, which may encompass novel susceptibility genes for the disease. Therefore, extensive screening of the genes located in the vicinity of these LD regions is necessary to elucidate their role in uterine fibroids.

EP09.08 Residual and recurrent rates after loop electrosurgical procedure of cervical intraepithelial neoplasia

Mette Mikkelsen (1), V Raaby (1), P Bor (1)

(1)Regional Hospital of Randers, Denmark

Background and objective: Loop electrosurgical excision procedure (LEEP) is a basic procedure in the conisation performed on patients with high grade intraepithelial lesions (HSILs). The aim of this study is to investigate the residual disease and recurrent rates in patients who underwent LEEP treatment for cervical intraepithelial neoplasia. Method: This is a retrospective study. A total of 91 women who underwent LEEP conisation of the uterine cervix in 2004 were included in the study. Patients were followed with Pap smear tests at 6 months interval in the first year and then once a year during the next 5 years. Results: The mean age of the patients included in the study was 34, 8 years. Indications for conisation were HSILs including carcinoma in situ (n=83), low-grade squamous intraepithelial lesions and atypical squamous cells (n=6), and others (n=2). Residual disease, which means cervical intraepithelial neoplasia detected at the surgical margin of the conisations specimens, was found in 19 (20,8%) patients. Recurrence was observed in 7 patients (7,6%). Six of these seven patients had negative lesion margins in the conisations specimens, which equals 8,3% of all with negative lesion margins. Conclusions: Our study shows a residual disease rate of 20,8% after LEEP and that 8,3% of patients with negative lesion margins had recurrence, which could be explained by multifocal disease, inadequate investigation of surgical specimens or HPV-DNA persistence. Patients with cervical intraepithelial neoplasia treated with LEEP require close monitoring due to high residual disease and recurrence rates.

EP09.09 Risk factor profile and HRT in 553 women admitted with a stroke or transient ischemic attack

Nete Hornnes (1)

(1)Hvidovre Hospital, Denmark

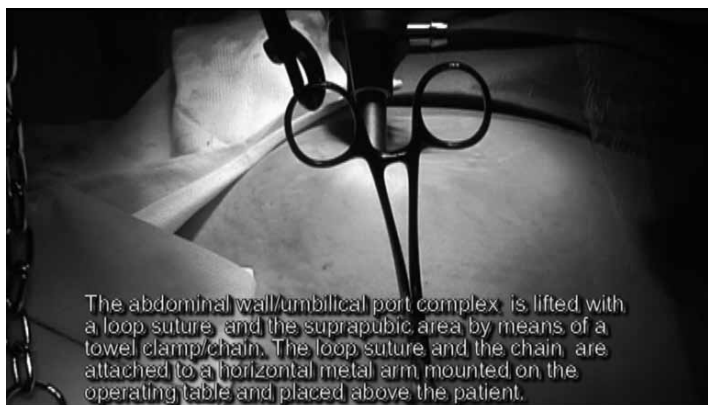
The aim of this substudy was to investigate the risk factor profile in women with and without current or previous HRT. Methods: From April 2004 to September 2007 1,306 patients admitted to one of 3 Copenhagen hospitals with a stroke (first or recurrent) or a transient ischemic attack were consecutively included in a cohort study. Female patients were interviewed about age at menopause and in the case of current or past HRT about age at initiation and duration of treatment. Results: Information about HRT was given in 553 women of whom 49 (9%) were current users, 131 (24%) were past users, and 373 (67%) were never users. Median duration of HRT was 48 months. Mean age at stroke onset was 75.2 years in ever users and 77.3 years in never users ($p=0.047$). There was no difference in number of baseline risk factors in a profile containing hypertension, diabetes, hypercholesterolemia, smoking, excessive intake of alcohol, BMI>25 and a sedentary lifestyle ($p=0.1541$) between the two groups. Multiple regression analysis showed that smoking, excessive alcohol use, and high BMI was associated with younger age at stroke onset. Smoking was most prevalent in ever users ($p=0.021$). Conclusion: Ever users of HRT were younger at stroke onset; still, their stroke risk factor profile was not different from that of never users.

EP09.10 Low-pressure gas laparoscopy, a laparoscope holder and a slit-trocar

Bo S Bergström (1)

(1) Nordfjordeid hospital, 6771 Nordfjordeid, Norway

A different surgery situation. Lifting of the abdominal wall, using the umbilical port as an anchoring device, complemented by suprapubic lifting by means of a towel clamp, makes surgery in low gas pressure possible with sustained optimal or adequate view. Using a laparoscope holder allows the camera man to perform more productive tasks, the surgeon to perform efficient surgery with both hands and to have complete procedure control. The laparoscope holder heightens procedure accuracy by keeping the video image completely stable. If using a multi-access umbilical port (SILS) the laparoscope/camera follows the instrument(s). Conversion to laparotomy is a risk in MIS. If problems occur, the situation can be rescued by an extra port. Gastight mechanical abdominal wall lifting makes temporary measures in a "gasless" condition possible and a special slit-trocar support that. With no gas pressure involved, conventional open surgery instruments such as clamps, scissors and powerful suction devices can be used. With standard gas pressure, the abdominal wall lifting means a "double" outcome in forming the intra-abdominal space. The slit-trocar makes immediate shift between low, standard and zero gas pressure possible. All patients benefit from low-pressure gas laparoscopy and especially high-risk patients including pregnant women. A laparoscope holder eliminates excessive personnel costs and provides an assistant 24 hours a day, 7 days a week. A conventional instrument can sometimes prevent conversion to laparotomy. Minimal invasive surgery in low pressure pneumoperitoneum supported by a laparoscope holder and a slit-trocar, most likely reduces health care spending and shortens patient's recovery.



EP09.11 Ten years national data on early pregnancy complications, clinical practice, and quality

Øjvind Lidegaard (1), CHF Vestergaard (1)

(1)Rigshospitalet, Denmark

Objective. The aim of this study was to assess changes in clinical management of early pregnancy complications in Denmark over the ten-year period 1998-2007. Design and setting. National consecutive cross-sectional studies. Population. Women 15-49 years old in Denmark. Methods. The National Registry of Patients (NRP) delivered data to this survey. Main outcome measures. Pregnancy outcomes and procedures related to failed pregnancies. Results. From 1998 to 2007 we observed in first trimester a decrease in miscarriages of 4.3% (ns), in induced abortions of 5.5% (ns), in ectopic pregnancies of 40% ($p < 0.001$). The evacuation rate in women with spontaneous fell in first trimester from 34% in 1998 to 13% in 2007 ($p < 0.001$), and in early 2nd trimester from 87% to 55% ($p < 0.001$). Medical termination of first trimester induced abortion increased from 2.4% in 1998 to 41% in 2007 ($p < 0.001$), and the proportion referred before eight completed weeks of gestation increased from 25% to more than 50% ($p < 0.001$). Among women with first trimester missed abortion, 25% of the medically treated women went through an evacuation. Conclusion. Through the last decade, Denmark experienced substantial reductions in ectopic pregnancies, hydatidiform mole, and 2nd trimester miscarriages, contrasting a 50% increase in 2nd trimester induced abortions. Medical termination of unwanted pregnancies increased and surgical evacuations of miscarriages decreased.

EP09.12 Transvaginal mesh repair with and without bridge repair: risk of erosion

Mustafa Bulugma (1), O Elmariamy (1), S Meghil (1), E Zawia (1)

(1)Zawia teaching hospital, Libya

The objective of the study is to determine risk of erosion by using polypropylene mesh as an overlap graft for repair of anterior and posterior vaginal wall due to defect in endopelvic fascia - cystocele and rectocele - with and without bridge repair. Genital prolapses occur in more than 20% of Libyan women. Bridge repair is a vaginal flap putted over mesh to enforce it. Erosion of mesh is one of the main complications occur after mesh repair. Mesh can erode as quickly as 12 weeks and as late as 2nd year of operation, and this usually towards the vagina. 180 patients with vaginal wall prolapses operated over 5 years (July 2003 - June 2008) using polypropylene mesh, 35% (63 p) with anterior mesh repair for cystocele, 30.5% (55 p) with posterior mesh repair for rectocele and 34.5% (62 p) with cysto-rectocele. In 40% of the patients, repair of defect is associated with other vaginal operations like vaginal hysterectomy and vaginal slings for stress urinary incontinence. Half of the patients (90 p) had bridge repair along with mesh in repair of the defect. All of the operations carried out mostly in Zawia teaching hospital-Libya. More than 92% were above 50 years old. Erosion of the mesh occurred in 9% of those with mesh repair alone, 3 patients with anterior mesh repair and 5 patients with posterior mesh repair. No erosion seen in those patients with mesh and bridge repair. Bridge repair along with mesh in repair of genital prolapses reduce risk of erosion to 0%. KEYWORDS Polypropylene Mesh, Cystocele, Rectocele, Anterior bridge repair, Posterior bridge repair, Anterior mesh repair, Posterior Mesh repair.

EP10.01 Comparison between vaginal sonography & hysteroscopy in infertility patients

Masoumeh Asgharnia (1), M Mehrafza (2), M Oudi (2), Z Nikpuri (2)

(1)Azad Islamic University Rasht branch

(2)Mehr Infertility Institute. Rasht. Iran

Background:Hysteroscopy is a valuable diagnostic and therapeutic modality in the management of infertility. Aim:To evaluate the accuracy of hysteroscopy based on a histopathological report from endometrial specimens for intrauterine disorders. Materials and Methods:This is a cross-sectional study. The study included 85 infertile patients. All were admitted for investigation of infertile women before assisted reproduction in Mehr infertility institute between 2006 and 2007 hysteroscopy, and histological evaluation of endometrial biopsy performed. We compared the efficacy of hysteroscopy in the diagnosis of benign intrauterine pathology in infertile women in whom the diagnosis was confirmed by histologic studies. The women had a complete evaluation with preoperative hysteroscopy, and histological analysis of uterine cavity specimens.Sensitivity, specificity, predictive and negative predictive values were calculated for hysteroscopy considering the histological study as 100%. Results:Sensitivity and specificity of sonography in diagnosing the polyp were stated 81% and 64% respectively. Sensitivity and specificity of hysteroscopy showed of polyps revealed 85% and 84% respectively. The results indicated that Sensitivity and specificity of sonography in diagnosing the myoma were 25% and 98% respectively. Sensitivity and specificity of hysteroscopy in diagnosing the myoma were expressed 50% and 93% respectively. Conclusion: Hysteroscopy is a safe and rapid direct visualisation of the uterine cavity. We believe it should be replaced by the diagnostic hysteroscopy as a first line infertility investigation.

EP10.02 Single and dual embryo transfer, how far we are?

Ehab Abu Marar (1), K Diedrich (1), S Al-Hasani (1)

(1)UKS-H, Lübeck, Germany

Since decades back, specifically since the development of infertility treatment was progressively advancing, the multiple pregnancy is increasing drastically and of the major contributors to this increment is assisted reproductive technology ART, which reflects an increased risk for both mother and fetus other than being a health hazard. We reviewed the literature systematically to explore and compare the dual embryo transfer DET with single embryo transfer SET whether electively or not in more viewpoints like financially, and scientifically and finding out which of these policies may give better outcome by analyzing both in a neutral broad spectrum manner. Our results were given upon some clinical trials, and in part upon other articles found in the literature, but the comparison between all these articles found to be unreliable due to the huge variation between them all, but mainly SET has the advantage of minimizing the twinning and multiple pregnancy rate MPR, on the other hand it has less benefit when compared to DET in the matter of implantation rate IR, ongoing pregnancy rate OPR, but a comparable results may be obtained when applying eSET of frozen-thawed embryo. We concluded that larger clinical trials should still be encouraged for such comparison especially in applying same criteria for both methods.

EP10.03 Ejaculation failure on the day of oocyte retrieval for IVF: Case series and review of the literature

Jude Okohue (1), J Ikimalo (2), S Onuh (1)

(1)Port Harcourt Fertility Centre Nigeria

(2)Department Of Obstetrics and Gynaecology, University of Port Harcourt Teaching Hospital, Rivers State, Nigeria

BACKGROUND: The process of IVF can be stressful on the couples. Unlike the woman, the male partner is only required to produce semen for insemination with the eggs. Unfortunately, some men are not able to produce semen on the day of oocyte retrieval. **METHODS:** We retrospectively reviewed the case records of 5 couples over a 3-year period (December 2006 – November 2009), who experienced unexpected ejaculation failure on the day of oocyte retrieval for IVF. Data, including age, cause(s) of infertility, previous treatment history and methods adopted to recover sperms were documented. **RESULTS:** Overall, 301 oocyte retrieval cycles were performed during the 3-year period and 5 men had ejaculatory failure, giving an incidence of 1.66%. In 3 cases (60%), there was no prior history of difficulty in producing semen on demand. Prescription of 50mg Sildenafil citrate and the couples watching sexually stimulating videos did not help. Surgical sperm retrieval was successful in case 1. Case 5 had a marital conflict which was further aggravated by their failure to produce a semen sample. Cases 3 and 4 had repeat IVF cycles. The male partners were not aware oocyte retrieval would take place the following day. Both men produced semen within a couple of hours. **CONCLUSION:** Anxiety most likely played a major role in these cases. Asking the men to produce semen the evening before oocyte retrieval, without their knowledge, might be beneficial especially in low resource settings without cryopreservation services

EP10.04 Organization of a satellite-IVF function, results from a 2 year period

Peter Johannesen (1), A Højgaard (1), L Kempf (1), J Allen (1), F Hald (2)

(1)Gynaecological Obstetrical Department, Regional Hospital, Randers, Denmark

(2)Fertility Clinic, Brædstrup, Denmark

Aim: To present a model of advanced reproductive treatment in a regional hospital setting in order to provide a coherent organization with a high quality and minimum discomfort to our infertile patients. **Background:** the satellite IVF cooperation is established with the public fertility clinic in Brædstrup situated 72 km south of Randers. Fertility assessment, stimulation and follow-up in early pregnancy are managed by the fertility team in Randers, ovum pick up and embryo transfer takes place in Brædstrup. The purpose of the model is to provide:

- Reduction in transportation during the many visits of treatment
- High patient satisfaction due to sense of coherence
- Reduction in patient anxiety due to a high level of contact with a small, dedicated staff.
- Increased work satisfaction and knowledge of the staff.

Results: The two clinics communicate on a daily basis by phone and fax. Study visits to the IVF clinic take place quarter yearly. Patient information and stimulation protocols are identical. **Results:** Total number of started cycle (2008+2009): 103 IVF and ICSI cycles. Number of clinical pregnancies: 36 (35.0%). All patients agreed to a policy of single embryo transfer in their first cycle. In an anonymous patient satisfaction survey in spring 2009, 95% of our patients found that their treatment was well organized. The fertility team reports high level of work satisfaction. **Conclusion:** Our satellite IVF organization has proven its value in terms of treatment quality, patient satisfaction and opportunities for professional development of our staff.

EP10.05 Prediction on tubal factor infertility by measuring Chlamydia trachomatis and chlamydial heat shock protein 60-specific antibody and cell-mediated responses – a prospective study

Päivi Joki-Korpela (1), T Rantsi (1), H-M Surcel (2), J Paavonen (3), A Tiitinen (3)

(1)Kätilöopisto Maternal Hospital, Helsinki, Finland

(2)Institute for Health and Welfare, Oulu, Finland

(3)Department of Obstetrics and Gynecology, University of Helsinki, Finland

Infertility is a common problem, and examinations and treatments for patients are costly. Approximately one third of infertile couples suffer from tubal factor infertility (TFI). Non-invasive methods for detecting TFI would be needed for effective and economical planning of the treatment. We are doing a prospective study in Helsinki University Central Hospital concerning *C. trachomatis* infections, their immunological response among women with or without TFI. Previously, our group has shown retrospectively that TFI prediction model could be improved by combining four distinct markers: antibody response to *C. trachomatis* and to chlamydial heat shock protein 60 (CCHSP 60), and proliferative reactivity of peripheral blood mononuclear cells to chlamydia elementary body and recombinant CHSP 60 antigens (Tiitinen et al. 2006). Now we are applying this method prospectively for 400 couples suffering from infertility and validating the developed TFI prediction model. So far, we have collected and analyzed blood samples from approximately 225 couples (450 patients), and it seems that approximately 10 % of patients are positive with these markers. We are now collecting data on patients and results of their examinations and treatments. In addition, we are studying the effect of *C. trachomatis* infection on semen.

EP10.06 Global gene analysis of human primordial and primary follicles

Sara Markholt (1), EH Ernst (1), K Lykke-Hartmann(3), CY Andersen(2), E Ernst (1)

(1)Reproductive Laboratory, Institute of Anatomy, University of Aarhus, Denmark

(2)The Laboratory of Reproductive Biology, University Hospital of Copenhagen, Rigshospitalet, Denmark

(3)Department of Medical Biochemistry, Aarhus University, Denmark.

Introduction: The pool of primordial or resting follicles constitutes at any one moment in time the reproductive potential of a female. An understanding of the mechanisms that regulate the activation of follicular growth and the ensuing growth and differentiation of preantral follicles is a prerequisite for the use of resting follicles to enhance reproductive efficiency in humans. Several interesting perspectives arise if the pool of primordial follicles potentially could be tapped to increase the reproductive efficiency in a variety of situations in humans and to ameliorate fertility in women exposed to gonadotoxic treatment. However, in order to achieve this, the basic mechanisms that regulate how, why and when activation of follicular growth takes place need to be understood beyond the morphological changes. The objective of this study is to get insight into the gene expression of oocytes of human primordial and primary follicles.

Methods: Oocytes of primordial and primary follicles were isolated from formalin fixed paraffin embedded human ovarian tissue using a laser microdissection microscope. Oocytes were pooled in three samples and global gene expression assessed through DNA microarray analyses.

Results: The results of the gene analysis will be presented at the congress. And possible clinical use of the genes found to be activated at this step of oocyte maturation will be discussed.

EP11.01 The comparative study of pregnancy outcomes in primiparous and multifarious women with age raise

Maryam Nooritajer (1), A Aghamohammadi, (2)

(1)Islamic Azad university branch of Eslamshaher, Iran

(2)Faculty of nursing and midwifery Sari Azad University of Medical sciences, Iran

Objectives: Nowadays many women delay their pregnancy even up to the 4th decade of their life because of different reasons such as occupational ,educational and economical reasons .Therefore ,protecting the mother and infant`s health needs complete awareness of pregnancy outcomes in these ages for the midwives and the gynecologists. The present research was done with the aim of comparing the pregnancy outcomes in primiparous women and multifarious women over 35 and below 35 years. Methodology: This research was a descriptive comparative study. The inputs were contained of 1021 pregnant women and pregnancy outcomes were compared in 4 groups of primiparous and multifarious women over and below 35.To analyze the inputs using SPSS software ,the χ^2 test, Fisher, Odds-Ratio and logistic regression with forward method were used. Results: In primiparous women, there is a statistically significant relation between the age over 35 and preeclampsia, gestational diabetes, preterm labor, cesarean and low birth weight. In multifarious women, there is a significant relation between age over 35, preeclampsia and low birth weight. In the women over 35 years parity is effective on the measure of preeclampsia and cesarean delivery. Conclusion: Mother`s high age can be an independent factor for pregnancy outcomes. The primiparous women are exposed to more affectivity of age. As a matter of fact the aged women can have a natural vaginal delivery with a term infant and the over age mustn't be a contraindication for pregnancy. KEY WORDS: primiparous, multifarious, pregnancy outcome

EP11.02 The value of the middle-cerebral-to-umbilical-artery pulsatility index ratio in the prediction of adverse neonatal outcome in the fetuses with IUGR and preeclampsia

Rozeta Shahinaj (1), N Manoku (1)

(1)University Hospital of Obstetric and Gynecology of Tirana, Albania

Objective: To investigate the diagnostic value of MCA/UA PI ratio for the prediction of adverse perinatal outcome in IUGR and preeclampsia. Materials and methods: We included in the study 200 patients recovered in our Hospital with the diagnosis of fetal growth restriction and preeclampsia or both, from January to December 2008. The study population was divided into two groups depending on the normal or abnormal values of MCA/UA PI ratio. The criteria for adverse perinatal outcome were intrauterine and early neonatal death, gestational age at delivery, neonatal birth weight, Apgar score below 7 at 5 minutes, admission to the neonatal intensive care unit and the duration of treatment. Results: We divided the study population into two groups depending on normal or abnormal value of MCA/UA PI ratio. In 36 patients we found abnormal values. Neonates of mothers with abnormal values of MCA/UA pulsatility index ratio had significantly lower gestational age at delivery (34.8 vs 38.5, $P=0.001$), lower birth weight (2169.1 vs 3236.5, $P=0.001$), lower Apgar score at 5 minute (8.3%, $P=0.0016$), significantly greater risk of admission to intensive care unit (35.4% vs 13.9%, $P=0.0008$), longer duration of treatment in NICU (4 days vs 0.6 days, $P=0.007$) and more importantly, significantly greater risk for perinatal death (13.9% vs 0%, $P=0.001$). Conclusion: ACM/UA pulsatility index ratio is a very good predictor of adverse outcome in the fetuses with fetal growth restriction and preeclampsia or both.

EP11.03 Relationship of vitamin E consumption and preeclampsia/ eclampsia in pregnant women

Soghra Nikpour (1), Z Atarodi Kashany (2), S Parsay (3), S Mokhtarshahi (1), H Haghani 1

(1)Iran University of Medical Science, Iran

(2)Zahedan University of Medical Sciences, Iran

(3)Shahid Beheshti University of Medical Sciences, Iran

Background and Aim: Preeclampsia and eclampsia are threatening complications of pregnancy influencing the health of mothers and their fetus. So, prevention of these complications through providing mothers with natural diet vitamins during pregnancy is very important. The aim of this study was to examine relationship between consumption of diet rich in vitamin E and preeclampsia/ eclampsia in pregnant women. Material and Method: This was a case-control study. Data were collected through interview and filling up questionnaires. One hundred and fifty four women with age between 18-35 years were selected through continuous sampling method (75 women in case and 79 in control group). Case and control groups were matched according to the gravida and vitamins supplement consumption. Results: Finding indicated that there were statistically significant relationship between preeclampsia/ eclampsia and consumption of foods rich in vitamin E. This relationship was significant according to the number of servings and also amount of vitamin E received, for the number of serving for both nuts and unsaturated vegetable oil, mayonnaise cream, and for the amount of vitamin E received from diet ($\approx 15\text{mg/day}$). Consumption of these diets in case group was less than control group. The consumption of urated vegetable oil in case group were higher than control group. Conclusion: As the results showed, there were direct relations between preeclampsia/eclampsia and insufficient consumption of food full of vitamin E. Proper educational programs about nutrition during pregnancy, particularly during first trimester in the first pregnancy, is recommended.

EP11.04 Maternal use of glucocorticoids during pregnancy and risk of birth defects: an 11-year population-based study in Denmark

Anne-Mette Bay Bjørn (1), V Ehrenstein (1), H Hundborg (1), M Nørgaard (1)

(1)Department of Clinical Epidemiology, Aarhus University Hospital, Denmark

Aim: To examine the association between use of prescribed glucocorticoids (inhaled, oral, or topic preparations) during pregnancy and risk of congenital birth defects among the off-spring. Background: Glucocorticoids are first-line drugs for treatment of a variety of conditions in women of childbearing age. Design: Population-based prevalence study. Setting: All pregnant women who gave their first live-birth after 20th gestational week in the Central and the North Denmark Regions from 1 January 1997 to 31 December 2007. Methods: We linked data from the Danish Medical Birth Registry and the regional prescription databases to obtain information of prescriptions for reimbursed glucocorticoids filled during the period from 30 days before pregnancy until delivery. Results: Among 82,410 women giving first live-birth, we identified 2,295 (2.8%) women who redeemed at least one prescription of glucocorticoids during early pregnancy. We registered 113 (4.9%) birth defects among off-springs of users of glucocorticoids in early pregnancy compared to 3,278 (4.3%) birth defects among off-springs of non users [adjusted prevalence odds ratio (POR)=1.17 (95% confidence interval (CI) 0.96; 1.41)]. We found the highest prevalence of birth defects (6.2%) among users of glucocorticoid in combination [adjusted POR=1.53 (95%CI 0.80; 2.90)] and among users of glucocorticoid inhalation (5.4%) [adjusted POR=1.29 (95%CI 0.91; 1.84)]. Conclusion: Our findings suggest that users of glucocorticoids during pregnancy have an increased risk of birth defects among off-springs; however, it is unclear whether the effects were causal or due to factors related to the underlying disease or some confounding factor.

EP11.06 A randomized study: metformin and insulin in GDM. Interim results

Kristiina Tertti (1), U Ekblad (1), T Rönnemaa (2)

(1)Turku University Central Hospital, Department of Obstetrics and Gynecology, Finland

(2)Turku University Central Hospital, Department of Internal Medicine, Finland

Objectives: Oral metformin may be an alternative to insulin in the treatment of gestational diabetes mellitus (GDM). We evaluated neonatal and maternal outcome in GDM patients treated with metformin or insulin. Methods: We report interim data of a noninferior design, randomized prospective trial 100 first patients (final number will be 278) requiring pharmacological therapy for GDM. Patients were randomly assigned to metformin or insulin. Primary endpoints were neonatal hypoglycemia and difference in the birth weight percentile. Maternal and neonatal outcome was further studied in two subgroups according to pre-pregnancy body mass index (BMI) > 30 (n=19 in insulin group, n=20 in metformin group) and BMI < 30 (n=31 in insulin group, n=20 in metformin group). Results: There were no differences in neonatal hypoglycemia or birth weight percentile between insulin and metformin groups. There were no significant differences between groups in transmission to neonatal intensive care unit, in 5 minutes Apgar scores or umbilical artery pH. Maternal demographic or obstetric data did not differ between the groups. However, there were statistically significantly more vacuum assisted deliveries in the insulin group than in the metformin group (p<0.05). 20% of mothers with metformin needed supplementary insulin. There were no statistically significant differences in neonatal or maternal outcome between insulin and metformin treated mothers in BMI groups > 30 and < 30. Conclusions: Metformin is as effective as insulin in treating GDM patients. However, one fifth of metformin treated mothers need additional insulin. Pre-pregnancy BMI does not influence the outcome.

EP11.07 Successful treatment of massive thromboembolic disease with regional recombinant tissue plasminogen activator and vena cava inferior filter in a puerperal woman

Rie Adser Virkus (1), ECL Løkkegaard (1), M Jørgensen (2), T Bergholt (1)

(1)Hillerød Hospital, Hillerød, Denmark

(2)Rigshospitalet, Copenhagen, Denmark

Objective: Venous thromboembolism (VTE) is the leading cause of maternal mortality in the western world. Throughout the period 2002-2006, 4 women in Denmark died from VTE related to their pregnancy, all complicated with pulmonary embolism. The treatment of massive VTE and prevention of pulmonary embolism during pregnancy and in the puerperal period is challenging. Pregnant women have an increased risk of thromboembolic disease and treatment with anticoagulation therapy increases the risk of antenatal, intrapartum and puerperal bleeding with risk for the safety of both baby and mother. The use of thrombolytic agents during pregnancy and in the puerperal period is controversial. Systemically and regional administered thrombolytic agents have only been used in life threatening situations in pregnant and puerperal women and are only described in literature as cases. Due to the lack of evidence, extending experience about thrombolytic treatment of venous thromboembolic disease in pregnant and puerperal women is essential. Case :We present a woman with massive bilaterally puerperal DVT, treated with regional thrombolysis and an inferior vena cava filter. The treatment was successful. Conclusion :When meeting a pregnant or puerperal woman with a massive thrombus, it is important to be aware of the different treatment modalities. The treatment of choice must be individual and based on risk factors, clinical presentation, diagnostic findings, local resources and experiences. Key words: Pregnancy, Venous thromboembolism, regional thrombolysis, inferior vena cava filter

EP11.08 Gestational diabetes mellitus and body mass index - does the antenatal care program change the BMI?

Mia Steengaard Olesen (1), PK Berthelsen (1), HB Wielandt (1)

(1)Sygehus Lillebaelt, Kolding, Denmark.

Introduction The aim of the study was to evaluate the outcome of the special antenatal care program offered to pregnant diagnosed with Gestational Diabetes Mellitus (GDM). The present analyses consider the changes in the Body Mass Index (BMI). Study population In 2009 a total of 3176 women were admitted for delivery at Dept. of Gyn. & Obst. Sygehus Lillebaelt, Denmark. Among them 122 were diagnosed with GDM and they represent the study population. **Method** The patients were allocated through the screening process as defined in the Guidelines confirmed by the Danish Society of Gynecology and Obstetrics (DSOG) and subsequently offered an oral glucose test. At blood glucose level beyond 9,00 mmol/l they were diagnosed with GDM. This study considers GDM patients treated with diet only. They were included in the special antenatal care program attended by an obstetrician, a dietician and a nurse specialized in the care of GDM patients. The records were included in a database appropriate for analyses regarding the peri- and post natal outcome. **Results** The analyses compare preconceptional and post partum BMI in three categories of GDM patients (BMI <27; BMI 27,1 -34,9 and BMI >35). **Conclusion** The antenatal care program as it is today is designed to consider GDM, but further individual guidance in order to obtain weight reduction should be given to the GDM patients with BMI > 27.

EP11.09 Can cervical length discriminate between low and high risk of preterm delivery in women with threatened preterm labour?

Camilla Bernt Wulff (1), CK Ekelund (1), M Hedegaard (2), A Tabor (1)

(1)Copenhagen University Hospital, Rigshospitalet, Fetal Medicine, Denmark

(2)Copenhagen University Hospital, Rigshospitalet, Department of Obstetrics, Denmark

OBJECTIVES:The aim was to investigate if a cervical length (CL) cut-off of 15 mm is relevant to use in clinical practice in women with threatened preterm labour. **METHODS:** 146 women with singleton pregnancies were admitted with threatened preterm labour between 23-33+6 weeks of gestation at Rigshospitalet from 2006 to 2009. Sonographic measurement of CL was carried out on admission. The outcome measures were spontaneous delivery within 48 hours, 7 days and delivery before 34 weeks according to a CL cut-off of 15 mm. **RESULTS:** Median gestational age at admission and delivery was 29.4 (23.1-33.7) and 38.4 (24.9-42.1) weeks, respectively, and median CL was 22 (4 - 58) mm. Spontaneous delivery within 48 hours, 7 days of presentation and before 34 weeks of gestation occurred in 25 %, 38.9 % and 50 % of women with CL < 15 mm and 3.6 %, 9.1 % and 11.8 % of women with CL ≥ 15 mm, respectively. The 15 mm CL cut-off value showed a sensitivity, negative predictive value and false positive rate for delivery within 48 hours of 69.0 %, 96.4 % and 20.3 %, and within 7 days of 58.3 %, 90.9 % and 18.1 %, respectively. Logistic regression analysis demonstrated that CL < 15 mm and bleeding were the only significant predictors for delivery. **CONCLUSION:** A 15 mm CL cut-off was not adequate to discriminate between high and low risk of spontaneous preterm delivery as 10 out of 110 women with a CL ≥ 15 mm delivered within 7 days.

EP11.10 Exercise in pregnancy- motivation through easy-accessible information

Eva Dreisler (1), M-L Saaby-Tüchsen (1)

(1)Herlev Hospital, Denmark

Background: In healthy pregnant women regular exercise prevents pre-eclampsia, obesity and gestational diabetes. A shorter active stage of labor and less cesarean sections are seen in regularly exercising pregnant women. Present guidelines from the Danish National Board of Health recommend 30 minutes of daily exercise throughout the pregnancy. However this seems difficult to achieve for all pregnant women. Objectives: Promotion of exercise in pregnancy, through identification of limiting factors and development of a new concept for information of pregnant women. Methods: Literature search for factors with impact on exercise habits during pregnancy. After identification of factors with promoting/limiting effect on exercise in pregnancy the information concept was developed. Results: Exercise in pregnancy was strongly related to pre-pregnancy exercise. Intrapersonal barriers as lack of motivation and irrational concern for the baby have been identified as limiting factors. Pain during exercise, fatigue, lack of time or childcare are limiting factors as well. Not receiving adequate advice about exercise was associated with arrest of exercise in third trimester. The new information concept intended to reach all pregnant women. An informative poster was developed. The poster was intended for waiting areas for pregnant women, e.g. at the GPs or the midwives office. The poster contained pictures of pregnant women exercising, intending to work as a role-model and thereby lead to motivation. Text-boxes with easy-accessible information about beneficial effect of exercise were also included in the poster. Conclusion: Limiting factors were identified. An informative poster was developed to be distributed for waiting areas.

EP11.11 The virus infections in obstetrics and placenta pathology

Vladimir Kuzmin (1)

(1)Moscow State University of Medicine and Dentistry, Department of Obstetrics and Gynecology, Moscow, Russian Federation

Study of features of current and outcomes at virus and bacterial infections at the women, development of rational tactics of running of pregnancy, delivery at the women and newborn. We have revealed 2900 pregnant women with virus infections: virus hepatitis B and C, herpes, cytomegalovirus, HIV infection and followed them during pregnancy. The verification of the diagnosis was carried out in view of the data clinical and special methods of researches. We examination of placenta by special methods. The medical therapy directed on removal of symptoms most frequently to an observed pathology, with the account thus of a degree of weight and stage virus hepatitis, has allowed to keep pregnancy at all women. To prevent development of virus hepatitis B all newborns were introduced vaccine and immunoglobulin during the first hours after delivery, and following vaccination of 1, 2 and 12 months of life. With the purpose of preventive maintenance virus hepatitis C applied immunoglobulin. At display of clinical symptoms of an infection to children carried out antiviral and symptom therapy, detailed virology research, with the subsequent supervision in dynamics. Chemoprophylaxis HIV infection at pregnant women descend frequency transmission HIV to newborn with 50% to 5%. Realization hemostatic cesarean section permit descend frequency transmission HIV to newborn with 10% to 2%. Thus, the creation of women dispensary system and organisation of newborn help and the choice of optimum obstetrics tactics with the virus-bacterial infections pregnant women are the necessary condition for the decrease of perinatal mortality and morbidity.