

# **THE CLIMACTERIC**

## **Management and attitudes among women and physicians**

### **Akademisk avhandling**

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av

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Leg. Läkare

Avhandlingen baseras på följande delarbeten:

- I. **A longitudinal population study of climacteric symptoms and their treatment in a random sample of Swedish women.**  
Thunell L, Stadberg E, Milsom I, Mattsson L-Å.  
Climacteric 2004;7:357-365.
  
- II. **Changes in attitudes, knowledge and hormone replacement therapy use: a comparative study in two random samples with 6-year interval.**  
Thunell L, Stadberg E, Milsom I, Mattsson L-Å.  
Acta Obstet Gynecol Scand. 2005;84(4):395-401.
  
- III. **Scientific evidence changes prescribing practice – A comparison of the management of the climacteric and use of hormone replacement therapy among Swedish gynecologists in 1996 and 2003.**  
Thunell L, Milsom I, Schmidt J, Mattsson L-Å.  
Submitted
  
- IV. **The effect of continuous combined HRT on glucose homeostasis and plasma lipids. A placebo-controlled study in postmenopausal women with type 2 diabetes.**  
Thunell L, Andersson B, Glassell M, Mattsson L-Å.  
Submitted

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## **The Climacteric Management and Attitudes among Women and Physicians**

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**Aims:** *Paper I:* To longitudinally assess the prevalence of climacteric symptoms, the use of hormone replacement therapy (HRT) and life-style factors in the same women in 1992 (aged 46-62 years) and in 1998 (aged 52-68 years). *Paper II:* To study changes in (i) the prevalence of HRT use and (ii) attitudes and knowledge about the climacteric among 46-62 years old women resident in Göteborg 1992 and 1998. *Paper III:* To study changes in management strategies concerning HRT among gynecologists in Sweden and to assess possible use of HRT among gynecologists. *Paper IV:* To investigate the effect on glucose homeostasis and plasma lipids of treatment with estradiol and norethisterone acetate (NETA) in postmenopausal women with type 2 diabetes.

**Patients and methods:** *Papers I & II:* Population-based studies initiated in 1992 in 46-62 years old women, (5 birth cohorts) randomly obtained from the population register. The women received a postal questionnaire regarding life-style, the climacteric and its treatment. *Paper I:* In a prospective, longitudinal cohort study the same women (n = 3816) were assessed again in 1998 with a similar questionnaire. *Paper II:* In a new cross-sectional study 1998, with identical design as the study from 1992, a random sample of 5411 women of the same ages as in the study from 1992 was contacted. *Paper III:* In 1996, gynecologists in Sweden (n = 1323) were invited to return a postal questionnaire about (i) their attitudes, knowledge and management strategies concerning HRT and (ii) their own or their partners possible use of HRT. In 2003, the same technique was used and a similar questionnaire was sent to practicing gynecologists in Sweden (n = 1320). *Paper IV:* Thirty-one postmenopausal women with type 2 diabetes were included in a randomised, double-blind, placebo-controlled study with cross-over design. Each treatment period was 6 months. All metabolic and anthropometric examinations were performed at baseline and after each treatment period.

**Results:** *Paper I:* The prevalence of climacteric symptoms increased in the same women between 1992 and 1998: vasomotor symptoms 52%/62%, sleep disturbances 51%/69%, loss of libido 38%/57%, depression/irritability 57%/65%. Current use of HRT increased from 14% in 1992 to 34% in 1998. The number of smokers decreased (32% to 26%) and BMI and exercise increased. *Paper II:* HRT use increased between 1992 (13%) and 1998 (31%) in the cross-sectional comparison. The highest prevalence was reported in women 54 years of age (46%). Forty-four percent of the women were prepared to consider life-long HRT if the treatment was free from withdrawal bleedings (35%, 1992). Eighty percent believed that the risk of osteoporosis decreased during HRT use (61%, 1992) and 68% thought that the risk of breast cancer increased (58%, 1992). *Paper III:* In 2003, 11% of the gynecologists thought that all women without contraindications should be offered HRT compared to 44% in 1996. Twenty-five percent in 2003 stated that risk factors for osteoporosis were absolute indications for HRT compared to 60% in 1996. Current ischaemic heart disease was considered to be an indication for HRT by 7% in 2003 (60% in 1996). Seventy-one per cent of female gynecologists and 68% of the male gynecologists' partners used HRT in 2003 (88 och 86% in 1996). *Paper IV:* Estradiol/NETA therapy decreased hyperandrogenicity i.e. sex hormone binding globulin (SHBG) increased and free testosterone decreased. Lipoprotein (a) and plasminogen activator inhibitor-1 (PAI-1) decreased. No changes in glucose homeostasis were found.

**Conclusions:** Symptoms associated with the climacteric period increased in the same birth cohorts of women from 46-62 to 52-68 years of age. Use of HRT increased markedly between 1992 and 1998 in women in Göteborg, Sweden. Gynecologists in Sweden were more cautious in their management strategies concerning HRT in 2003 compared to 1996 and their personal use of HRT had also decreased. The impact on cardiovascular risk factors and glucose homeostasis of 2 mg estradiol/1 mg NETA in postmenopausal women with type 2 diabetes is probably neutral.

**Keywords:** *climacteric, epidemiology, longitudinal, climacteric symptoms, hormone replacement therapy, attitudes, knowledge, gynecologists, postmenopausal, type 2 diabetes, hyperandrogenicity, glucose homeostasis, lipids, PAI-1*