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Title: Causes of hyperemesis gravidarum

Abstract:

Whereas nausea and vomiting in pregnancy occurs in up to 80% of all pregnancies, hyperemesis gravidarum represents a more severe condition reported to affect 0.5-3.2% of pregnant women. Hyperemesis is the most common reason for hospitalization in early pregnancy, and is associated with adverse pregnancy outcomes such as preterm birth and low birth weight. The aetiology of hyperemesis is largely unknown. The main aim of this thesis was to study the effect of different environmental and genetic factors on the risk of hyperemesis as registered in the Medical Birth Registry of Norway and the Norwegian Mother-and-Child Cohort.

The present thesis presents evidence of ethnic differences in the prevalence of hyperemesis. All immigrant women residing in Norway, except those born in Western Europe or North America, had increased risk of hyperemesis compared to ethnic Norwegians. The ethnic differences could not be explained by the socio-economic factors studied. Length of residence in Norway did influence the risk of developing hyperemesis, but did not show any universal pattern across the immigrants groups. Consanguinity did not influence the risk hyperemesis, which suggests that fetal recessive genes are not playing a major role in the development of hyperemesis. The study of familial clustering of hyperemesis showed a high intergenerational recurrence risk of hyperemesis transmitted through the mothers. This indicates that

maternal, not fetal, genes are at work, although co-variation of environmental factors also might contribute to the development of hyperemesis. Finally, we showed that low as well as high BMI increased the risk of hyperemesis, at least among non-smokers. Smoking was found to protect against hyperemesis.