Symptomatology and Outcomes of Women with Hyperemesis Gravidarum as Reported in a Large Registry

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Introduction

Hyperemesis gravidarum (HG) is a severe form of nausea and vomiting of pregnancy (NVP), occurring in 1-2% of pregnant women. Our understanding of the spectrum of symptoms and outcomes derives largely from small series of HG patients, giving an incomplete view of this condition.

Objective

Our objective is to report the breadth and severity of their symptomatology, and their maternal and fetal outcomes. This is the first report of a large number of affected women from an HG registry.

Methods

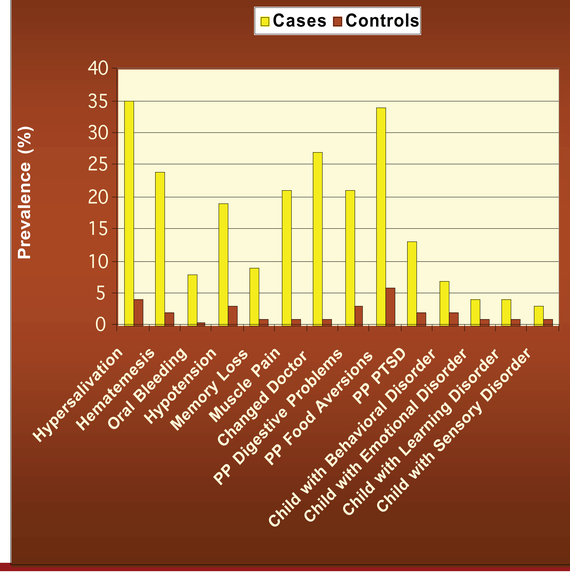
The nonprofit Hyperemesis Education and Research (HER) Foundation administered an on-line survey from 2003-2005, questioning women regarding their symptomatology, and maternal and fetal outcomes.

A control population was recruited largely from on-line parenting groups. HG was defined as significant weight loss and debility secondary to nausea and vomiting during pregnancy, typically requiring medications and/or IV fluids for treatment. Women with at least one gestation of at least 27 weeks duration, were the subject of this analysis, and data from early pregnancies that were lost were not included. As women reported on multiple pregnancies, data regarding the specific characteristics and outcomes of pregnancies were aggregated at the level of the woman. Thus, if the characteristic of interest was found in any one of her pregnancies, that characteristic was noted, and the proportion of women who had at least one pregnancy with that characteristic was reported. Odds ratios (OR) were adjusted for the number of pregnancies ≥ 27 weeks per woman.

Patient Demographics

	Cases	Controls	P values
Number of subjects	N = 819	N = 541	
Maternal age (yrs)	32 ± 5	35 ± 6	
	32 (20-62)	35 (19-62)	P < 0.001
Race/Ethnicity			
White	698 (85%)	442 (82%)	
Black	20 (2%)	6 (1%)	
Hispanic	31 (4%)	13 (2%)	
Asian	16 (2%)	47 (9%)	
Other	54 (7%)	33 (6%)	P < 0.001
Residence			
USA	656 (80%)	465 (86%)	
UK	57 (7%)	57 (11%)	
Australia	40 (5%)	2 (0%)	
Canada	28 (3%)	8 (1%)	
Other	38 (5%)	9 (2%)	P < 0.001

Selected Pregnancy Characteristics among Cases and Controls



Results

The study population included 819 cases and 541 controls. Of the 384 women with HG who reported having more than one pregnancy, 95% reported a recurrence.

Women reported their most severe weight loss among all their pregnancies:

- o 16% lost < 5% of pre-pregnancy weight
- o 27% lost 5%-10% of pre-pregnancy weight
- o 46% lost 10-20% of pre-pregnancy weight
- o 10% lost > 20% of pre-pregnancy weight

Weight loss ≥ 15% (N=214, 26%) was significantly associated:

During Pregnancy with:

- oExcess salivation
- oGall bladder and liver dysfunction
- oHematemesis
- oMuscle pain
- oRenal failure
- oRetinal hemorrhage

In the Postpartum Period with:

- oLonger recovery time
- oGall bladder dysfunction
- oInsomnia
- oMuscle pain
- oNausea
- oPTSD

Women with weight loss ≥ 15% were nearly twice as likely as other women with HG to continue to have symptoms throughout pregnancy [63/214 (29%) vs. 117/605 (19%), OR = 1.73, 95% CI (1.20-2.47), P = 0.003].

Results (cont):

Postpartum, cases were more likely than controls to report bonding difficulties and negative feelings toward the baby, and continued excess vomiting and weight management problems.

Summary

oHG is associated with a broader spectrum of symptoms during pregnancy than has been previously reported.

oSome physical changes related to HG do not resolve with delivery.

oChildren of mothers with HG are more likely to be reported as having behavioral, emotional, and learning disorders.

oSevere HG, as indicated by greater weight loss, is associated with greater morbidity during pregnancy and higher persistence of HG-associated symptoms postpartum.

Conclusions

Prenatal care practitioners should be aware of the broad spectrum of symptoms related to HG so that they can provide appropriate interventions and support.

Effects of HG persisting postpartum, and effects of HG on the offspring have not previously been reported and should be investigated further.