

## ORIGINAL ARTICLE

### Hyperemesis Gravidarum: An observational study and outcome at a tertiary teaching hospital in Dhaka city

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#### Abstract:

*Hyperemesis gravidarum is a complication of pregnancy that can lead to severe maternal nutritional deprivation. About 0.14% -1.3% of pregnant women suffered from hyperemesis gravidarum. Women with hyperemesis gravidarum causing loss of greater than 5% of their pre-pregnancy weight. And has been linked to fetal growth restriction, wernickes encephalopathy resulting in fetal death in 40% of cases . Hyperemesis gravidarum interfere there working life, it is important to know the outcome of hyperemesis gravidarum on fetus and mother. A tertiary level hospital based prospective study was conducted on woman suffering from Hyperemesis gravidarum and attended in OPD and IPD of Holy Family Red Crescent Medical College Hospital, Bangladesh to asses the adverse outcome of Hyperemesis Gravidarum on .mother and baby and identifies its determinants. The mean age of the study group was 26.25±3.25 years. Regarding parity, 54.0% patients were found primipara and 46.0% patients found multipara. The majority of the subjects (66%) were normal weight, 18% patients had overweight by BMI (body mass index) 12% patients were underweight and 4% patients were obese. Distribution of the study subjects according to educational status, it was found that 32% were primary, 44% patients were high school, 12% patients were SSC, 8% patients were HSC and 4% patients were graduate and above. Out of 50 cases, 64% were housewife, 18% patients were service, 4% patients were business and 10% patients were student. Majority of patients (70%) had positive family history of hyperemesis gravidarum. Study showed 46% respondent started vomiting within 6-10 gestational weeks, 30% started vomiting more than 10 gestational weeks and 24% started vomiting within 1-5 gestational weeks. Maximum subjects (78%) needed home treatment and 22% patients were hospitalization. Most of the patients (68.0%) hemoglobinc level 6- 10mg/dl. Maximum were rhesus positive blood group. Most of the patients 98% had normal serum creatinine level, 86% patients had normal serum electrolytes, 94% patients had normal urine R/M/E, 78% patients had normal RBS level, 100% patients of hyperemesis gravidarum patients ultrasonography reports in pregnancy was normal. Among 50 patients, 4% patients had abortion history, 2% cases had IUD, 44% patients had IUGR and 10% patients had AGA in pre-term pregnancy. Out of 23 term pregnancy, 24% cases had IUGR and 22% cases had AGA. Two percent neonatal death after delivery. Hyperemesis Gravidarum is related to maternal age, parity, education level, body mass index, occupation of the patients, education level, family history of hyperemesis gravidarum and adverse outcome on mother and baby.*

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**Introduction:**

The definition of hyperemesis gravidarum varies in the published literature. Fairweather's definition is the one most widely used which states, persistent vomiting before the 20th week of gestation and of such severity to require hospital admission unassociated with coincidental medical conditions. Hyperemesis gravidarum is a complication of pregnancy that can lead to severe maternal nutritional deprivation.<sup>2</sup> 0.14% - 1.3% of pregnant women suffered from hyperemesis gravidarum<sup>3</sup> Women with hyperemesis gravidarum causing loss of greater than 5% of their pre-pregnancy weight.<sup>4</sup> Hyperemesis gravidarum has been linked to fetal growth restriction<sup>5</sup> and Wernickes encephalopathy resulting in fetal death in 40% of cases<sup>6</sup>. Before the availability of modern treatments, severe nausea and vomiting was important contributor to maternal mortality. While rarely life threatening now, women report considerable physical and psychological effects with altered family, social or occupational functioning.<sup>8</sup> About half of our population is woman and many of them are employed and contribute to family. But hyperemesis gravidarum interfere their working life, it is important to know the outcome of hyperemesis gravidarum on fetus and mother.

**Materials and method:**

It was a prospective type of study. The study was conducted in the department of Obstetrics & Gynaecology, Holy Family Red Crescent Medical College Hospital, Dhaka. The study was conducted over the period of January 2014 to December 2014, Woman was suffering from Hyperemesis gravidarum and attends in Holy Family Red Crescent Medical College Hospital, Dhaka who fulfills the selection criteria. Fifty cases were eligible for this study considering

inclusion and exclusion criteria. Patient with previous history of other medical illness (peptic ulcer disease cholelithiasis). Patient who have taking anthelmintic drugs within six month before conception were not selected in this study. Data was collected by face to face interview using a structured questionnaire containing all the variables of interest.

**Results:**

The maximum number of patient 60(60%) was found in 25-30 age group.

**Table-I :** Distribution of the patients by parity (n=50)

Parity	Number of patient	Percentage
Primipara	27	54
Multipara	23	46

Total 27 (54.0%) patients were found primipara and 23 (46.0%) patients found multipara.

Almost 46% patients study respondent started vomiting within 6-10 gestational weeks.

Maximum study subjects 78% received home treatment and 22% patients were hospitalization.

**Table-II:** Investigations

Investigation	Frequency	Percentage
Serum electrolytes		
Normal	43	86.0
Abnormality	7	14.0
Urine R/M/E		
Normal	47	94.0
Abnormal	3	6.0
RBS		
Normal	39	78.0
Abnormal	11	22.0
Ultrasonography on pregnancy profile		
Normal	50	100.0
Abnormal	0	0

Table- III: Distribution of the patients by pregnancy outcome (n=50)

General examination	Number of the Patient	Percentage
Abortion	2	4.0
IUD	1	2.0
Preterm	27	54.0
SGA (IUGR)	22	44.0
AGA	5	10.0
Term	23	46.0
SGA (IUGR)	12	24.0
AGA	11	22.0
Neonatal death after delivery	1	2.0

#### Discussion:

This study was carried out to achieving better outcome in case of hyperemesis gravidarum patients attending HFRCMCH. This present study, maximum number of patient 60(60%) was found in 25-30 age group, the next was 13(26%) in 20-24 years age group and 7(14.0%) patients found in < 20 years of age. The mean age of the study group was 26.25±3.25 years. This result is consistent with the study done by Ronna L. Chan et al<sup>9</sup> were shown mean age of hyperemesis gravidarum patients was 27.8 years (SD = 5.5). The majority of the subjects 66% were normal weight, 18% patients had overweight by BMI, 12% patients were underweight and 4% patients were obese. The result substantiated with Ronna L. Chan, et al study.<sup>9</sup>

Above table showed that out of 50 cases, 64% were housewife, 18% patients were service, 4% patients were business and 10% patients were student. The results of this study are consistent with a study Weigel MM<sup>11</sup>.

Present study showed edicassociated mal illness cfr.estudy subjects, most of the patients 72% had no asso: ated disease, 14% patients had12% had

hypertension, and 2% patients had choronic renal disease. No association with other disease was also agreed with JK Jueckstock<sup>12</sup>

There are family history of the study subjects, 70% patients had positive family history of hyperemesisgraviderm. 30% patients had no family history. Similarly the study Marlana S Fejzol° was reported that there was approximately 28% of cases reported their mother had hyperemesis gravidarum while pregnant with them.

46% patients study respondent started vomiting within 6-10 gestational weeks, and found symptoms of Hyperemesis Gravidarum was peaks at around 9 weeks gestation. And 22% patients were hospitalization. The results correlates with a study by JK Jueckstock et al and AseVikaner,PerMagnus et al<sup>13</sup>.

Regarding investigations most of the patients (68.0%) hemoglobinc level 6-10mg/dl, 36% patients had blood group B+ve, 24% patients had 0+ve blood group, 18% patients had AB+ve, 16% patients had A+ve blood groupj. The results consistent with Elveren HB<sup>14</sup> Pregnant women with Hyperemesis Gravidarum had higher prevalence of Iron deficiency anaemia. And according to Bhupinder Kaur Gill<sup>15</sup> rhesus positive blood group are more common among hyperemesis gravidarum .

Among 50 patients, 4% patients had abortion history, 2% cases had IUD, 44% patients had IUGR and 10% patients had AGA in pre-term pregnancy. Out of 23 term pregnancy, 24% cases had IUGR and 22% cases had AGA.

Two percent neonatal death after delivery. Results correlate with the study done by Bailit JL.<sup>16</sup>

**Conclusion:**

Nausea and vomiting of pregnancy can severely reduce a woman's quality of life and ability to function. The degree of limitation is associated with the severity of symptoms. There is a high prevalence of severe nausea and vomiting of pregnancy/hyperemesis gravidarum among relatives of hyperemesis gravidarum cases in this study population. Administration of antiemetic drugs may be necessary, as well as IV fluid replacement, food administration via nasogastric or parenteral routes in severe cases. The general practitioners and obstetricians should ensure to provide advice, counselling and effective medication to pregnant women and thus prevent the exacerbation of symptoms.

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