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RESEARCH ARTICLE

CLINICAL STUDY OF HYDATIFORM MOLE IN A TERTIARY HOSPITAL IN GARHWAL, UTTARAKHAND.

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Abstract

Background: Hydatiform is one of the causes of bleeding in early pregnancy. The incidence varies widely throughout the world. The main aim of our study was to determine the incidence and clinical presentation of hydatiform mole in the Garhwal region of Uttarakhand.

Methods: Ours is a retrospective study of all the Hydatiform mole cases that were diagnosed in the Obstetrics and Gynecology Department of Veer Chandra Singh Garhwali Government Medical College, Srinagar, Uttarakhand during the period from January 2016 to December 2018.

Results: A total number of 71 cases of Hydatiform mole was diagnosed in our hospital out of the total number of 9864 deliveries during the above period giving the incidence of 0.72%. Vaginal bleeding was the most common symptom present in 91.5% of the patients.

Conclusion: The incidence of Hydatiform mole in the Garhwal region of Uttarakhand is quite high. Most of the cases here are complete moles which are easily curable by suction evacuation and proper follow up.

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Introduction:-

Hydatidiform Mole is an abnormal condition of the ovum where there is partly degenerative and partly hyperplastic changes in the young chorionic villi¹. The etymology is derived from Hydatitisia (Greek "a drop of water") referring to the watery contents of the cysts. There are two types of hydatiform complete and partial based on different histopathological and cytogenetic features.

In general, complete mole have a 46 XX karyotype, the molar chromosomes being derived entirely from father whereas partial mole have either 69 XXY or 69XYY karyotype with one maternal and two paternal haploid chromosomes². Complete moles are characterised by rapidly progressing hydatiform changes with gross trophoblastic hyperplasia with the absence of blood vessels. On the other hand partial mole shows hyperplasia of syncytiotrophoblast with the presence of blood vessels affecting only a portion of placenta and there is usually the presence of a foetus which generally dies at an early gestational age³.

The highest incidence of H mole is in Indonesia (1 in 77 pregnancies) whereas it is lowest in USA and European countries being about 2 in 1000 pregnancies. Risk factors associated with H mole includes extremes of maternal

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age, previous H mole, deficiency of β -kerotene, animal fat intake and smoking⁵. The Royal College Of Obstetrician And Gynaecologist recommend that suspected molar pregnancies should generally be removed by suction evacuation although hysterectomy is a good option in older patients who are at a risk of developing malignant sequelae.⁶

Materials And Methods:-

This study was conducted in the Dept. of OBG in VCSGGMSRI, Srinagar, Uttarakhand. It was a retrospective study of all the H. mole cases diagnosed in this institute between January 2016 to December 2018. A total of 71 cases were diagnosed with H. mole during this period and case files of all these cases were sourced from the M.R.D department of our hospital. The diagnosis of H. mole was based on the clinical history and examination, ultrasonography, Serum β -HCG and histopathological reports of the suction evacuation specimen. The maternal age, parity, LMP (for gestational age), educational status, socioeconomic status and history of any prior molar pregnancy were noted. All the symptoms of the patients like vaginal bleeding, abdominal pain and hyperemesis were noted and signs of preeclampsia and thyrotoxicosis were recorded. Complete medical and obstetrical examination were performed in all patients including vitals, Chest examination and abdominal assessment of fundal height. Vaginal examination was performed in all the cases for state of the cervix and uterine size. The investigations done in all patients include complete blood count, ABO-Rh typing, Serum β -HCG level, Thyroid profile and Pelvic ultrasound. Chest X-Ray was done in some selected cases where required. Most of the patients were managed by suction and evacuation (S & E) and the specimen was sent for histopathological examination to the Pathology dept. of our college. Repeat serum β -HCG level was done for all patients after 45 days. In a few high risk cases, chemotherapy with methotrexate was given.

Statistical Analysis:

The collected data were entered in Microsoft Excel and were analysed using the software Statistical Package for Social Sciences (SPSS) version 21.0. Descriptive statistical measures such as percentage, frequency etc. were applied.

Result:-

A total of 9864 patients delivered at VCSGGMSRI during the period from January 2016 to December 2019. The total number of patients diagnosed with hydatiform mole during this period was 71 giving an incidence of 0.72%. The maximum number of women belonged to the age group of 20-29 years (36.6%). The higher number of patients were multiparous (56.3%) whereas a very significant number were primigravida (43.7%).

In our study, we diagnosed only 2 patients with partial mole (0.3%), one patient was a case of invasive mole who underwent hysterectomy and the rest of the cases (99.6%) were complete hydatiform moles. 38 patients (53.5%) were diagnosed in the first trimester whereas 31 patients were detected in the second trimester. The maximum number of patients (53.5%) belonged to the lower socio economic classes. Blood group A belonged to 26 patients whereas only 2 cases with AB blood group were seen.

Table 1:- Maternal Characteristics

Variable	Number	Percentage
Age in years		
<20	12	16
20-29	26	36.6
30-39	20	28.2
>40	13	18.3
Parity		
0	31	43.7
1-4	36	50.7
>4	4	5.6
Gestational Age		
First trimester	38	53.5
Second trimester	33	46.5
Socio economic status		

Low	38	53.5
Middle	24	33.5
High	9	12.7
Blood Group		
A	26	36.6
B	19	22.5
AB	2	0.3
O	4	33.8

Vaginal bleeding was overwhelmingly the commonest symptom. As many as 65 patients (91.5%) presented with bleeding per vagina. Other notable symptoms were abdominal pain (29.6%), hyperemesis (16.9%), passage of grape like vesicles (0.7%). 3 patients (0.4%) presented with pre eclampsia and 2 patients (0.3%) presented with thyrotoxicosis.

The uterine size was larger than the gestational age in 51 patients (71.8%) and in only 4 patients (0.6%), it was smaller than the gestational age at presentation. Pre treatment β -HCG was elevated in all the patients. 70 cases were treated by suction evacuation (98.6%) whereas only the sole patient with invasive mole underwent hysterectomy. 3 patients (0.4%) were given post evacuation chemotherapy with methotrexate.

Table 2:-Clinical Presentation and Management

Clinical Presentation	Number (%)
Vaginal Bleeding	65(91.5%)
Abdominal Pain	21(29.6%)
Hyperemesis	12(16.9%)
Preeclampsia	3(6.4%)
Thyrotoxicosis	2(0.3%)
Passage of villi	5(0.7%)
Uterine Size	
Larger than date	51(71.8%)
Smaller than date	4(0.6%)
Compatible with date	16(22.5%)
Management	
Suction Evacuation	70(98.6)
Hysterectomy	1(0.1%)

Discussion:-

The overall incidence of hydatiform mole in our study was 7.2 per 1000 births or 1 in 134 births. The incidence varies widely throughout the world ranging from 1 in 77 pregnancies in Indonesia to 1 in 357 pregnancies in Nigeria⁷. In India the incidence, according to Shaw's textbook of Gynaecology ranges from 1/160 to 1/500. Even in European countries where the incidence is around 1/2000, the occurrence is significantly higher amongst the Asian population.⁸

In our study the maximum number of women belonged to the age group of 20-29 years(36.8%) although 28.2% and 18.3% cases belonged to the age group of 30-39 years and more than 40 years respectively. A case control study by Le Vecchia et al⁹ of 132 cases recruited in Lombardy (Northern Italy) showed a clear relation of gestational trophoblastic disease to extremes of maternal age. This study also showed the relation of GTD to advanced paternal age which gives epidemiological support to the cytogenetic evidence of an androgenetic role in the origin of GTD. Several other studies gives the evidence of hydatiform mole to advancing maternal and paternal age^{10,11,13}. One study showed a clear relationship of H. mole to multiparity which tally with similar studies¹².

In our study partial moles accounted for only a minuscule number of cases(0.3%) which is much lower than most of the other studies¹⁴. Our finding that blood group A & O were associated with H.mole was compatible with other

studies¹⁵. The main fact that vaginal bleeding was overwhelmingly the most common symptom seen in most other studies.

Conclusion:-

There is a wide variation in the incidence of Hydatiform mole throughout the world. Although the condition has malignant potential, when detected early and properly managed, the condition is easily curable. This condition has clear etiological relation to ethnicity, advanced maternal and paternal age and multiparity. The fact that most of the cases in our study were complete moles may have something to do with the fact that most of the cases belonged to the four districts of Pauri Garhwal, Tehri Garhwal, Rudrapur and Chamoli districts of the Garhwal region of Uttarakhand.

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