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HYDATIDIFORM MOLE – A CASE STUDY OF FIVE YEARS.

Pathology

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KEYWORDS

Introduction -

Hydatidiform mole is a type of gestational trophoblastic disease which are group of diseases related to normal or abnormal gestation that have a common denominator of trophoblastic proliferation[1]. A hydatidiform mole is an abnormal placenta character- ized by enlarged, edematous, and vesicular chorionic villi accompanied by villous trophoblastic hyperplasia[2]. It is subdivided into complete hydatidiform mole[Image 1] and partial hydatidiform mole[Image 2] based on morphologic, cytogenetic, and clinicopathological features[2]. The ratio of complete and partial mole varies in many studies but complete mole has outnumber partial mole in maximum studies[2]. The risk of persistent GTD is also high in complete mole than partial mole[2].

Patient and methods-

This study was conducted at B.J.Medical College and Sasson General Hospital,Pune, in Department of Pathology from Jan 2011 to Jan 2015 . In this study we retrospectively retrieved the clinical records of molar pregnancy regarding complete history, mode of presentation, investigations, management and according to follow-up. The information on the age, presentation symptoms, parity, and period of gestational were also included in our study. Investigation included pretreatment β HCG levels.

During the study period, there were 58 cases of Molar pregnancy out of 37966 total deliveries. The incidence was 1.52/1000 deliveries. Most common age group was 21-25 yrs and only 1.25% belong to >40 yrs of age. Presenting symptoms were vaginal bleeding and abdominal pain. Most of or cases were nullipara and most of them presented in the first trimester. Classification of complete and partial mole was done by microscopic examination and we got a higher number of complete than partial mole. β HCG of only 14 patients was obtained from records and that showed maximum number of patients with values of >50,000mIU/ml.

Results –

1. Table 1: Incidence of Hydatidiform mole.

City	Author & Year	Incidence
Current study	2016	1.52/1000 deliveries
Dinesh kumar [6] Imphal	2016	4.56/1000 deliveries
A.A.Jimoh[4] Nigeria	2006	4.18/1000deliveries
Amaka N. Ocheke[16] Nigeria	2011	2.8/1000deliveries

Incidence in our study was 1.52/1000 deliveries, which was comparable to Amaka N. Ochehe study.

2. Table 2: Age incidence of Hydatidiform mole.

Age group (yrs)	Current study (n=58)	Dinesh K. et al . 2016 (n =37)[6]	Igwegbe A et al. 2013 (n=34)[5]
16-20	20.0 %	12.5%	6.5%
21-25	37.5%	16.7%	29%
26-30	32.5%	33.3%	19.3%
31-35	5.0%	25.0%	12.9%
36-40	3.75%	8.3%	12.9%
41-45	1.25%	4.2%	19.4%

Maximum number of patients in our study belongs to 21-25 age groups which was comparable with Igwegbe A et al study.

3. Table 3: Symptomatology of Hydatidiform mole.

Symptoms		Current study	Igwegbe A et al. 2013 (n=34)[5]	Iklaki Christopher Ubong et al 2015 (n=72)[3]
Presented in trimester	1st	62.06%	30.30	60.29
	2nd	36.20%	27.27	23.53
	3rd	1.74%	42.42	16.17
Pain in abdomen	70.68%	30.30	47.1	
Bleeding per vaginum	29.32%	81.81	85.3	

Most patients presented in first trimester and most common complaint was amenorrhea followed by pain in abdomen which was comparable to Iklaki Christopher Ubong et al study.

4. Table 4: Parity of cases.

Parity	Current Study 2015	A.A.Jimoh et al 2012 Nigeria. (n=72)[4]	Igwegbe A et al. 2013 Nigeria (n=34)[5]	Amaka N. Ocheke[16] Nigeria 2011 (n=34)
Para 0	44.83%	13.9%	29.0%	20%
Para 1	41.38%	20.8%	12.9%	20%
Para 2	12.07%	18.1%	19.4%	24%
Para 3	00%	25.0%	6.4%	8%
Para >/=4	1.72%	22.5%	32.3%	28%

Maximum number of patients were nullipara (44.83%).

5. Table 5: Comparative analysis of complete and partial mole.

City	Author & yr	Complete mole	Partial mole
Current study (2015)	n=58	33 (56.89%)	25(43.10%)

New Delhi (2003)	Kumar N. (n=92)[8]	58(63.04%)	21(22.82%)
Madhya Pradesh (2014)	Shrivastava S. (n=37)[9]	29(78%)	08(22%)
Iraq (2013)	Zhraa Abd-Alkader (n=125)[10]	100(80%)	23(18.4%)
Nepal (2013)	Pariyar J. et al (n=45)[15]	12(26.6%)	01(2.2%)
Manipur (2012)	Dinesh K. et al (n=34)[6]	31(91.1%)	03(8.9%)

Our study reported maximum number of cases of complete mole 33(56.98%) and it was comparable with other studies.

6. Table 6: β-HCG levels of Hydatidiform mole.

Levels of βhCG (m IU/ml)	Present Study (2016) (n = 14) Pune	Chhabra S. et al (2007)[14] (n = 89) Sevagram
<50,000	08 (57.14%)	12(13.48%)
50,000 – 1,00,000	01 (7.14%)	20(22.47%)
>1,00,000	05 (35.71%)	57(64.04%)

βhCG was found maximum with values <50,000mIU/ML.

Image :- 1:

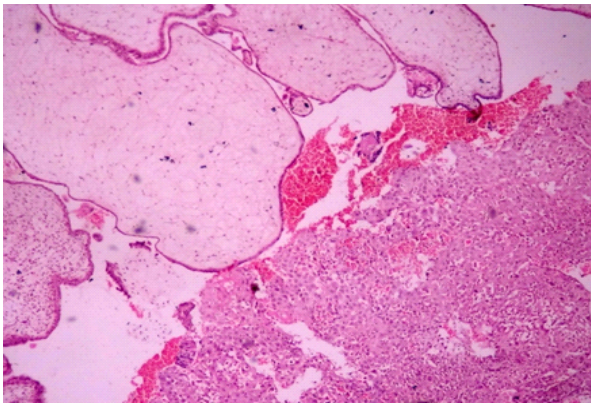
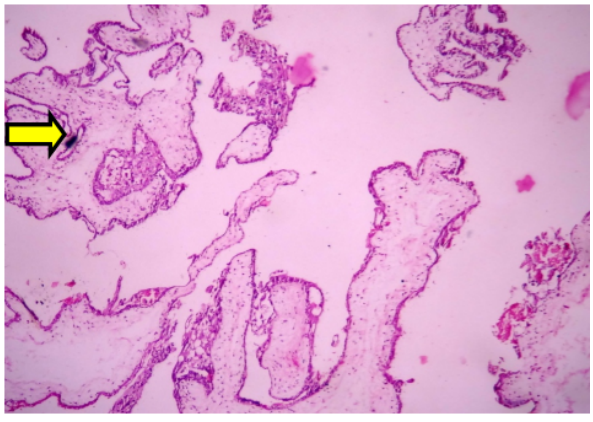


Image 1(100 X) : Complete Mole : Shows enlarged round villi and marked trophoblastic hyperplasia .

Image :- 2:

Image 2 (100 X) : Partial Mole (Grade I): Mixture of enlarged and small sized villi. Villi with scalloped margins and trophoblastic infoldings(yellow arrow) forming inclusions. Irregular trophoblastic hyperplasia seen.



Discussion

The purpose of this study was to explore the incidence and epidemiological correlates of molar pregnancy, the clinical behavior of this disease in our hospital. Details of patients with Hydatidiform mole whose samples were received at histopathology section at our hospital were retrieved retrospectively. In our study, from a period of Jan 2011 to Jan 2015 there were 37966 total deliveries and 58 Hydatidiform mole cases. The Incidence was 1.52 per1000 deliveries. The incidence of Hydatidiform mole varies worldwide which has been attributed to genetic, environmental, and host-related factors. In North America and Europe, the frequency of hydatidiform moles is approximately 100 per 100,000 pregnancies. A higher frequency was reported in some areas of Asia and the Middle East, with an incidence rate from 100 to 1,000 per 100,000 pregnancies [2]. We found an incidence of 4.56/1000 and 0.41/1000 deliveries in the studies conducted at Imphal and Nigeria respectively [Table 1].

Maternal age has been found to influence the risk of Hydatidiform mole; Women who are sexually active are at risk for developing GTD, but the incidence is substantially higher in women before 20 and after 40 years [2]. In our study, we found maximum number of patients in 21-25yrs of age group, this do not support the literature, however is in conformity with the experience of some other authors i.e Igwegbe et al [Table 2]. The absolute number of cases of mole or choriocarcinoma in women over 40 years is smaller because of their lower fertility[2] which is compatible with the results of our study in which only 1.25% cases belong to >40 yrs of age group [Table 2]. The classic signs and symptoms of Hydatidiform moe are excessive uterine size, hyperemesis, theca lutein ovarian cysts, hyperthy- roidism, or preeclampsia which are rare now a days[2]. The majority of patients present with vaginal bleeding or are discovered by sonography[2]. In present study most patients presented in first trimester and most common symptom was amenorrhea followed by pain in abdomen [Table 3]. This reflects the need for early Sonographic evaluation of all pregnancies and also of patients with complaints of amenorrhea.

In present study most of cases were nullipara, and this is at variance with reports from some authors where most patients were of high parity [Table 4]. Pervious bad obstetric history as spontaneous abortion was present in 06(10.34%) cases in the present study. A previous history of molar pregnancy has consistently been shown to influence the risk of Hydatidiform mole [2] but in present study such previous history was absent. The measurement of serum βhCG by radioimmunoassay is crucial in the diagnosis and follow-up of patients with hydatidiform mole, we were abel to collect pretreatment β Hcg levels of only 14 patients and most of them have values <50,000 as compared to Chhabra S study where maximum cases showed levels >1,00,000mIU/ml [Table 6].

Histopathological examination of uterine specimen is important to confirm diagnosis or make primary diagnosis in unsuspected case of molar pregnancy. In present study we have subdivided Hydatidiform mole into complete and partial mole depending on Histopathological and some clinical criteria. All 58 cases were examined microscopically; Out of which 33 (56.98%) cases were of complete and 25 (43.10%) cases of partial mole was found. These results were comparable to other studies and also with the literature [2] [Table 5].

The limitations of this study include the fact that it is a retrospective study with its attendant setbacks. There was also the poor follow up of patients.

Conclusion –

Molar Pregnancy form a group of rare but curable diseases. Early diagnosis , timely referral, proper and prompt treatment and follow up are an integral components of the managements. It is important to classify Hydatidiform mole into Complete and Partial as patients with complete mole have a high risk for subsequent Gestational Trophoblastic Neoplasia.

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