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Research Article

### FREQUENCY AND PATTERN OF CHORIOCARCINOMA (A hospital based case series study)

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**Abstract:**

**OBJECTIVE:** To determine the frequency and pattern of choriocarcinoma at tertiary care and private hospital.

**PATIENTS AND METHODS:** This descriptive case series study of six years was conducted at Liaquat University Hospital Hyderabad and simultaneously at private hospital as well. The pregnant ladies (19-40) years of age had non-specific symptoms as vagina bleed and abdominal pain were enrolled and evaluated for choriocarcinoma. The material consisted of hysterectomy specimen and the expelled products from the uterus, uterine curetting; suction evacuation. The specimens detail was obtained from the histopathology reports while the data was saved on pre-designed proforma and analyzed in SPSS 16. The frequency and percentages and mean  $\pm$  SD was calculated.

**RESULTS:** During six years study period, the histopathological biopsies and hysterectomy specimens revealed 16 patients with choriocarcinoma. Among sixteen cases of choriocarcinoma 12 cases (75%) had past history of hydatidiform mole and four patients (25%) had spontaneous abortion. The hysterectomy specimens in all cases consists of uterus cervix with adnexa measuring from 7 x 4 x 4 to 10 x 6 x 5.3 cms. Among these eight cases shown diffuse grayish black mass with surrounding margins of hemorrhage while the other eight cases had huge hemorrhagic areas with endometrial cavity necrosis. Microscopically the neoplasm shown abnormal proliferation of cyto and syncytiotrophoblast without formation of any villi.

**CONCLUSION:** The incidence of choriocarcinoma is a major health trouble, thus the proper evaluation, diagnosis and follow-up of these patients is necessary for the early management.

**Keywords:** Gestational trophoblastic disorders, choriocarcinoma and Hydatidiform mole.

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**INTRODUCTION:**

Gestational trophoblastic disorders represents spectrum of lesions characterized by an abnormal growth of trophoblast, includes choriocarcinoma, complete and partial mole, invasive hydatidiform mole and placental site trophoblastic neoplasm and all were associated with pregnancy[1-4]. The importance of gestational trophoblastic neoplasms not only as diagnostic and obstetric management but the association of the complete mole with choriocarcinoma and residual post evaluation trophoblastic disorders is matter of concerned[5-7]. In Pakistan the incidence of choriocarcinoma is higher and the use of cytotoxic chemotherapy has bring the improvement in the prognosis of gestational trophoblastic diseases[8]. Successful treatment of gestational trophoblastic tumors has been achieved by monitoring serum or urinary human chorionic gonadotrophin an essential step as far as management is concerned[9-11]. Therefore this study was conducted to evaluate the frequency of choriocarcinoma at tertiary care teaching hospital as early assessment can save the patients to acquire the spread of malignancy.

**PATIENTS AND METHODS:**

This descriptive case series study of six years was conducted at Liaquat University Hospital Hyderabad and simultaneously at private hospital as well. The pregnant ladies (19-40) years of age had non-specific symptoms as vagina bleed and abdominal pain were enrolled and evaluated for choriocarcinoma while the ladies with other malignant diseases, already on cancer chemotherapy, connective tissue disorders and non cooperative subjects were placed in exclusion criteria. After the informed consent, the detail history

was taken, clinical examination was performed and relevant investigations were advised. The material consisted of hysterectomy specimen and the expelled products from the uterus, uterine curetting; suction evacuation. The specimens detail was obtained from the histopathology reports from the pathological laboratory and the detailed gross examination of the specimens was performed and findings were recorded. The data was saved on pre-designed proforma and analyzed in SPSS 16. The frequency and percentages and mean  $\pm$  SD was calculated.

**RESULTS:**

During six years study period, the histopathological biopsies and hysterectomy specimens revealed 16 patients with choriocarcinoma. Among sixteen cases of choriocarcinoma 12 cases (75%) had past history of hydatidiform mole, four patients (25%) had spontaneous abortion while the interval between the antecedent pregnancy and choriocarcinoma was five months and two months. Out of 16 cases of choriocarcinoma, seven (43.7%) were among 19-29 age group and nine (56.2%) were in 30-40 age group. All cases were multigravida. All subjects presented with vaginal bleeding, six (37.5%) developed metastasis (mostly pulmonary) and five (31.2%) patients lost to follow-up. The hysterectomy specimens in all cases consists of uterus cervix with adnexa measuring from 7 x 4 x 4 to 10 x 6 x 5.3 cms. Among these eight cases shown diffuse grayish black mass with surrounding margins of hemorrhage while the other eight cases had huge hemorrhagic areas with endometrial cavity necrosis. Microscopically the neoplasms shown abnormal proliferation of cyto and syncytiotrophoblast without formation of any villi.

**Table 1: The Demographical and Clinical Profile of The Patients**

Age (yrs)	Frequency (N=16)	Percentages
19-29	07	43.7
30-40	09	56.2
<b>SYMPTOMATOLOGY</b>		
Bleeding per vagina	16	100
Amenorrhea	15	93.7
Pain in abdomen	15	93.7
Hyperemesis gravidarum	12	75
<b>BLOOD GROUP</b>		
A	07	43.7
B	05	31.2
AB	02	12.5
O	02	12.5
<b>PARITY</b>		
Para-4	09	56.2
Para-5	07	43.7

**DISCUSSION:**

The incidence of choriocarcinoma in the present study is approximate to the study by Motto F[12]. The most frequent symptom in the present study was bleeding per vagina observed in all patients, followed by amenorrhea (93.7%) and abdominal pain (93.7%) consistent to the study by Chhabra S, et al in which vaginal bleeding 97.78% followed by abdominal pain (91.11%) and amenorrhea (84.44%)[13]. The youngest patient was 23 years and oldest was 38 years, the interval between previous pregnancy and choriocarcinoma was 5 months to 2 months respectively. Rao BK[14], detects 120 subjects of choriocarcinoma in a total of 1098 gestational trophoblastic neoplasms. In their study the youngest subjects was 17 years and oldest 50 years while the interval of previous pregnancy and choriocarcinoma was 5 weeks to 8 years. In present study the patients had secondaries observed in lungs and vagina, ovary, lymph node and liver. In the present series, 12 out of 16 subjects, choriocarcinoma is preceded by hydatidiform mole and 4 preceded by abortion; correlates well with other studies[15-17]. Gambal studied 134 subjects of choriocarcinoma 6 (46%) were preceded by hydatidiform mole, 4 (30%) by term delivery and 2 (16%) by abortion[18]. In a study Kumar MS, et al observed pulmonary metastasis in 25 out of 50 subjects. Seven hepatic metastasis, three brain metastasis and 2 bone metastasis[19]. Vijaya V, et al[20], observed a unusual case presented with spinal cord compression by an extradural metastasis from gestational choriocarcinoma. In present study six (37.5%) cases out of 16 shown pulmonary metastasis with multiple opacities in both lungs. Of the 16 patients of choriocarcinoma, all 16 were treated by hysterectomy; six (37.5%) by chemotherapy and hysterectomy and five (83.3%) refused for chemotherapy and unable to follow up while the five (83.3%) patients expired due to metastasis.

**CONCLUSION:**

The incidence of gestational trophoblastic disorders (choriocarcinoma) is a major health trouble, thus the proper evaluation, diagnosis and follow-up of these patients is necessary for the early detection and management of malignant trophoblastic disorders and to reduce the mortality.

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