COMPARISON OF REPEAT EVACUATION VERSUS CONSERVATIVE MANAGEMENT IN PATIENTS WITH LOW RISK PERSISTENT GESTATIONAL TROBHOBLASTIC DISEASE AND NEED FOR CHEMOTHERAPY

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ABSTRACT

Introduction: Gestational trophoblastic disease consists of a group of disorders in pregnancy arising from abnormal tissue of placental origin ranging from benign entity that is hydatidiform mole to malignant condition like choriocarcinoma. Disease is increasing day by day with incidence of 28/1000 live births. This disease is commonly diagnosed through non-invasive technique i.e. pelvic ultrasound and Serum b-hCG measurement.

Objectives: To compare the effect of repeat evacuation verses no evacuation in terms of need of chemotherapy in patients with low risk persistent gestational trophoblastic disease.

Methodology: This Randomized Control study was conducted from July 2014 to January 2015 in Gynae B unit of Postgraduate Medical Institute, Lady Reading Hospital Peshawar. Due to extreme rarity of the disease, this study was carried out with a sample of 30 patients in each group, although the WHO software requires a sample of 40 patients in each group.

Results: A total of 60 patients (30 in each group) of the age range of 20 – 48 years included in this study had average age of 29.75 years ± 7.02 SD. In "Group A" effectiveness of the procedure was observed in 27 patients (90%) while in "Group B" the effectiveness was noted in 20 patients (66.7%) which implies that repeat evacuation have significantly greater effectiveness than conservative management with p-value = 0.028.

Conclusion: A Repeat uterine Evacuation is a useful therapeutic option and reduces the need of chemotherapy in selected patients.

Keywords: Evacuation, Chemotherapy, Gestational Trophoblastic, Effectiveness.

INTRODUCTION

Gestational trophoblastic disease consists of a group of disorders in pregnancy arising from tissue of placental origin ranging from benign entity that is hydatidiform mole i.e. partial and complete mole to gestational trophoblastic tumors including invasive mole, choriocarcinoma and placental site trophoblastic tumours.1

In Pakistan the incidence of Gestational Trophoblastic Disease is increasing day by day with incidence of 28/1000 live births.2 Worldwide gestational trophoblastic disease is reported to be highest in Asian countries as compared to non-Asian countries (1/387 live births v 1/753 live births).3

The exact etiology of molar disease is not well understood however it is associated with many risk factors like ethnicity, extreme of reproductive ages, previous molar pregnancy, low socioeconomic status, dietary deficiency of protein and folic acid and genetic predisposition.

The diagnosis of the disease is mostly by non-invasive technique that is by pelvic ultrasound and Serum b-hCG measurement. After diagnosing the disease the main stay of treatment is suction and evacuation, but up to 30% of the patient continue to bleed after initial evacuation due to persistent molar tissue in uterine cavity and may need repeat evacuation in order to reduce the need of chemotherapy for persistent disease.4

The curability of Gestational trophoblastic disease is a mile stone of success in history of modern medicine. Due to increasing incidence, recurrent nature and increasing potential of changing into malignancy this study is conducted in order to improve the treatment of Gestational trophoblastic disease in sense of reducing the need of chemotherapy, and to reduce the social psychological and health burden.

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MATERIAL AND METHOD:

This Randomized Control study was conducted from July 2014 to January 2015 in Gynae B unit of Postgraduate Medical Institute, Lady Reading Hospital Peshawar. Due to extreme rarity of the disease, this study was carried out with a sample of 30 patients in each group, although the WHO software requires a sample of 40 patients in each group.

All patients admitted through OPD or in emergency were included in the study. Patients were randomized into two groups, Group "A" and Group "B" via lottery method. In Group "A" those patients were included in which ultrasound showed retained products of conception and having β-hCG less than 5000 IU/L after first evacuation. All patients were properly assessed by taking detailed history, physical examination per abdominal per vaginal examination. Patients were shifted to operation theater intravenous assess were secured under general anes thesia. Patient were put in lithotmy position cleaned & draped, bladder were emptied and sims speculum were passed and anterior lip of cervix were held with sponge holding forceps and with help of 26 French suction tube and repeat evacuation were carried out in them by the senior post Graduate Trainee. In Group "B" those patients were included in which ultrasound shows retained products of conception and β-hCG less than 5000 IU/L after 1st evacuation but no second curettage were done and they were managed conservatively. Strict exclusion criteria were followed to control confounders and bias in study result. Both groups were then followed in the form of Serial Serum β-hCG two weekly till the titer was negative or till the requirement of single agent chemotherapy.

RESULT

A total of 60 patients with low risk persistent gestational trophoblastic disease were observed, which were divided in two equal groups A & B in accordance with the inclusion criteria. In Group "A", 8 (26.7%) patients had age of less than or equal to 25 years, 15 (50%) patients were in the age range of 26-35 years and 7 (23.3%) patients had age of more than 35 years. While group "B", 10 (33.3%) patients had age of less than or equal to 25 years, 13 (43.3%) were in the age range of 26-35 years and 7 (23.3%) patients with age more than 35 years. The age distribution among the group was also insignificant with p-value 0.833. (Table 1)

Effectiveness wise distribution was significant with p-value = 0.028. Group A showed 27(90%) effectiveness while non-effective in 3(10%) patients. Similarly Group B showed 20(66.7%) effectiveness while non-effective in 10(21.7%) patients. (Table 2).

Age wise distribution of effectiveness was almost same in all age groups. The patients having less than or equal to 25 years of age in group A have shown effectiveness in 7 (87.5%) patients while 1 (12.5%) patients being no effectiveness. Patients with 26-35 years of age have shown effectiveness in 14 (93.3%) of patients and 1 (6.7%) have shown no effectiveness. Similarly 7(85.7%) patients have shown effectiveness and 1 (6.7%) patients have no effectiveness, with age more than 36 years of

Table – 1: Age wise Distribution in both groups

Total Number of Patients = 60

Age (years)	Group		Total	p-value
	A	B		
< 25	08 (26.7%)	10 (33.3%)	18 (30.0%)	0.833
26 to 35	15 (50.0%)	13 (43.3%)	28 (46.7%)	
> 36	07 (23.3%)	07 (23.3%)	14 (23.3%)	
Total	30 (100%)	30 (100%)	60 (100%)	

Table – 2: Effectiveness wise Distribution in both groups

Total Number of Patients = 60

Effectiveness	Group		Total	p-value
	A	B		
Yes	27 (90%)	20 (66.7%)	47 (78.3%)	0.028
No	03 (10.0%)	10 (33.3%)	13 (21.7%)	
Total	30 (100%)	30 (100%)	60 (100%)	

Table – 3: Age wise Stratification of Effectiveness in both groups

Age (years)	Group				p-value
	A		B		
	Effectiveness		Effectiveness		
	Yes	No	Yes	No	
< 25	07 (87.5%)	01 (12.5%)	7 (70.0%)	3 (30.0%)	0.7647
26 to 35	14 (93.3%)	01 (6.7%)	9 (69.2%)	4 (30.8%)	0.5101
> 36	07 (87.5%)	01 (14.3%)	4 (57.1%)	3 (42.9%)	0.1923

age. The same pattern was followed in group B, although age wise effectiveness was insignificant in both the groups with p-value=0. 7647, 0.5101and 0. 1923 respectively. (Table 3).

DISCUSSION

Gestational trophoblastic disease (GTD) is a spectrum of tumours with a wide range of biologic behavior and potential for metastases. GTD refers to both the benign and malignant entities of the spectrum and include hydatidiform mole, invasive mole, choriocarcinoma, and placental site trophoblastic tumour. The last three are termed gestational trophoblastic tumours (GTT), all may metastasize and are potentially fatal if untreated. The incidence of hydatidiform mole varies in different regions of the world, but has been falling.1 In North America the incidence is approximately 0.6 to 1.1 per 1000 pregnancies; the rate is approximately three times higher in Asia.1 Choriocarcinoma in North America occurs in one of every 20,000 to 40,000 pregnancies.5

Medical methods of uterine evacuation have been associated with higher rates of chemotherapy.6 Concern has been raised that oxytocin may promote metastases of trophoblastic tissue.7 However it has been reported that stimulation before evacuation did not increase the risk of persistent disease.8

Persistent disease is seen in 15–20% of complete moles5: 15% have local recurrence, 4% metastatic disease. Metastatic disease is most often in the lungs (80%), followed by vaginal metastasis, metastasis in liver and in the brain (10%, often in choriocarcinoma).

Patients with liver and brain metastasis most often have concurrent lung and liver metastasis. Partial moles have in 0.5–2% local recurrence (generally not distant metastasis)9.

A study conducted in Dutch central registery for hydatidiform mole show that 8 out of 85 patients (9.4%) did not need additional chemotherapy after second curettage which significantly differ from the 209 patients(100%) in control group who all needed chemotherapy with a P value of less than 0.001.10

Medical evacuation of complete molar pregnancies should be avoided if possible.11,12 There is theoretical concern over the routine use of potent oxytocic agents because of the potential to embolise and disseminate trophoblastic tissue through the venous system. In addition, women with complete molar pregnancies may be at an increased risk for requiring treatment for persistent trophoblastic disease, although the risk for women with partial molar pregnancies needing chemotherapy is low (0.5%).13,14

The safest method of evacuation is suction dilation and curettage (D&C) under ultrasound control to ensure adequate emptying of uterine contents and to avoid uterine perforation15. A proportion of women who miscarry or who undergo medical terminations will have unsuspected molar pregnancies. As histological examination is not routinely requested, the diagnosis of GTN can be delayed resulting in significantly greater morbidity16. Histological examination of every termination is impractical, and perhaps a simple measurement of the urine or serum hCG level 3–4 weeks post-treatment to ensure return to normal is indicated16.

CONCLUSION

A Repeat utrine evacuation is a useful theraputic option and reduces the need of chemotherapy in selected patients. Repeate uterine evacuation can be a useful therapeutic option for patients with presumed persistent trophoblastic disease not mandating immediate chemo therapy, particularly where the hCG level is < 5000 IU/L. Patients with documented persistent trophoblastic disease on histological examination of the Repeate evacuation sample are more likely to require chemotherapy. Third evacuation is not now recommended.

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