Abstract

Introduction: Gestational trophoblastic disease is an abnormal proliferation of trophoblastic tissue. It has high prevalence in the South East Asian region, including Nepal. Very few reports exist regarding the Gestational trophoblastic disease in Nepal. This study was performed to identify the frequency, clinical presentation, type, extent and treatment modalities of Gestational trophoblastic disease in a medical college in eastern region of Nepal.

Methods: It was a retrospective study of 26 patients diagnosed with Gestational trophoblastic disease admitted in the Gynaecology ward of Nobel Medical College over period of 1 year from 15th January 2010 to 15 January 2011. The case records of all these patients were analyzed regarding their clinical presentation, investigation, treatment and follow up.

Results: During the study period, 2,754 live birth occurred and total of 26 patients were admitted with diagnosis of Gestational trophoblastic disease. The commonest age group was 21 – 39 years (69.2%). The disease was common in primigravidas which was 57.7%. 34.6% patients in the first and 65.3% in the second trimester of pregnancy presented with vaginal bleeding which was the main clinical symptom (84.6%), 92.3% underwent suction evacuation and the remaining 7.6% underwent hysterectomy. During follow up 26.9% were diagnosed to have persistent Gestational trophoblastic disease, and received chemotherapy.

Conclusion: Prevalence of Gestational trophoblastic disease is high in this study compared to world and national literature. Use of USG in early pregnancy plays an important role in the diagnosis and timely management of Gestational trophoblastic disease.

Key words: Gestational Trophoblastic Disease (GTD), Gestational Trophoblastic Neoplasia (GTN), chemotherapy, vaginal bleeding

Introduction

Gestational Trophoblastic Disease (GTD) includes a spectrum of disease with varying propensity for local invasion and metastasis including partial and complete Hydatidiform mole, invasive mole, choriocarcinoma and placental site trophoblastic tumour¹. Vaginal bleeding is common clinical presentation. Ultrasonography is a reliable non invasive tool for the diagnosis of GTD in clinical setting. Importantly, GT tumour is remarkably curable with chemotherapy even with the occurrence of multiple metastasis. Furthermore, after attaining complete remission with chemotherapy; patients may preserve their fertility and still have a normal reproductive outcome.

Incidence: varies in different part of world. The exact incidence in Nepal is not known. But a study conducted in Maternity hospital of Nepal has reported 1/291 of live births ⁶. In Japan-2/1000 deliveries, while in Malaysia 2.8/1000 ²³. Highest incidence of 12.1/1000 deliveries is reported from Turkey. Malignant potential of this disease is higher in South East Asia where it is found to be as high as 10-15% in comparison to 2-4% in western countries ⁴⁵. Nepal belongs to South East Asia and this study was carried out to determine the
prevalence in the Eastern region of Nepal of GTD.

**METHODOLOGY**

This retrospective, descriptive study was conducted at Nobel Medical College Biratnagar from 14th January 2010 to 15th January 2011. The case records of 26 patients admitted with diagnosis of GTD, were analysed regarding their clinical presentation, investigations, treatment and follow up.

**RESULTS**

There were a total of 2,754 live births during the study period of which 26 cases of GTD were diagnosed giving the prevalence of GTD as 9.4/1000 live births in this study. The age of women ranged from 15 to 49 years but maximum number were from 21 to 39 years which was 69.2% (Figure 1). By ethnicity 46.1% were Brahmin and Chetri (Figure 5). Majority of women were primigravida 58% (Figure 2). Molar pregnancy was found to be more common in women with low socioeconomic status 61.5% (Figure 4). Maximum no of women were presented in 13-24 weeks in 65.3% (Table 1). The main complaints were vaginal bleeding (84.6%), pain in lower abdomen 42.3%, excessive vomiting (32.1%). In 34.6% women moderate to severe anemia was detected (Table 2).

**Socio-Demographic Data**

<table>
<thead>
<tr>
<th>Gestational age at the time of Diagnosis</th>
<th>No. of Patients</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;12 wks</td>
<td>7</td>
<td>26.9</td>
</tr>
<tr>
<td>13-24 wks</td>
<td>17</td>
<td>65.3</td>
</tr>
<tr>
<td>&gt;24 wks</td>
<td>2</td>
<td>7.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>No. of Pts.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bleeding per vaginum</td>
<td>22</td>
<td>84.6</td>
</tr>
<tr>
<td>Pain Lower abdomen</td>
<td>11</td>
<td>42.3</td>
</tr>
<tr>
<td>Passage of moles</td>
<td>3</td>
<td>11.5</td>
</tr>
<tr>
<td>Hyperemesis gravidarum</td>
<td>6</td>
<td>32.1</td>
</tr>
<tr>
<td>Hypertension</td>
<td>1</td>
<td>3.8</td>
</tr>
<tr>
<td>Anemia</td>
<td>9</td>
<td>34.6</td>
</tr>
<tr>
<td>Dyspnoea</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
USG was the main diagnostic tool in all the 26 patients. 3 patients were lost to follow up. Histopathologically 24 (92.3%) patients were diagnosed to have hydatidiform mole and 2 (7.6 %) invasive mole. Four patients had previous history of molar pregnancy. Repeat curettage was performed in 9 patients. Main indication was persistent vaginal bleeding, lower abdominal pain and USG finding of retained molar tissue. Repeat curettage is useful for symptom control in selected pts with heavy bleedings. Out of 26 pts, 24 underwent suction evacuation and 2 pts underwent hysterectomy. Main indication was persistent vaginal bleeding, lower abdominal pain and retained molar tissue as documented by USG. Repeat curettage is useful for symptom control in selected patients with heavy bleeding.

DISCUSSION

The frequency of GTD in this study was 9.4/1000 live births which is quite significant. This frequency is also higher within the country when compared to hospital based studies in Maternity hospital which is situated in Kathmandu. The reason for the high frequency of GTD in this study might be the fact that this hospital is one of the major referral centres with a large catchment area. Another reason is that the patients belonged to a low socioeconomic status and also poor educational status. So, more screening program should be carried out to identify more cases as earlier the diagnosis, better the prognosis. Awareness generation program among the population and technical personality including doctor should be enhanced. As the frequency is seen to be quite high in this preliminary study, we should initiate proper investigations and surveillance program in collaboration with B. P. Koirala Memorial Cancer Hospital. Various risk factors have been identified from time to time for the development of GTD. Women <15 and >40 yrs are at high risk. In our study the common age group was 21-39 yrs. This may be because this was small hospital based study and this is the common reproductive age group. Increasing gravidity does not increase the risk of hydatidiform mole. In this study GTD was found to be more in primigravida (15 %). A number of reports noted a 70% increase in the risk of GTD among women who had never given birth, while increase in parity was a protective factor.

Vaginal bleeding is the most common presenting symptom of GTD, it occurred in 22 (84.6%) & it is also reported by other studies such as Kim and Zatelk et al. another study conducted by Moodley et al have also reported the same finding. The diagnosis of GTD was based on clinical, Serum BHCG, histopathological features and USG. Suction curettage for H. mole was the management of choice in most series. Similarly we did suction curettage was done in 24 (92.3 %) and 7.6% underwent hysterectomy for invasive mole. Hysterectomy was indicated for haemoperitoneum and persistent vaginal bleeding after evacuation. Repeat curettage was performed in 9 patients the main indication being persistent vaginal bleeding, lower abdominal pain and retained molar tissue as documented by USG. Repeat curettage is useful for symptom control in selected patients with heavy bleeding.

CONCLUSION

The prevalence of GTD in this study was high as compared to world and national literature. Use of ultrasound in early pregnancy plays a great role in timely diagnosis of Hydatidiform mole and in its early management which reduces morbidity and mortality. This is a preliminary study showing a high prevalence, further studies should be carried out in GTD in collaboration with national cancer center B. P. Koirala Memorial Cancer Hospital, in Bharatpur, Nepal.

REFERENCES