BRIEF COMMUNICATION

Clinical presentation of molar pregnancy at a teaching hospital in Iran, 1996–2006

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Gestational trophoblastic disease (GTD) comprises a spectrum of tumors with benign or malignant potential, including hydatidiform mole, invasive mole, choriocarcinoma, and placental site trophoblastic tumor. Hydatidiform moles, which comprise 80% of all GTD cases, are classified as complete or partial moles [1].

The traditional clinical presentation of molar pregnancy is well recognized. Signs and symptoms include vaginal bleeding that may be severe enough to lead to anemia, uterus larger than date, and the presence of ovarian theca lutein cysts. Systemic features include hyperemesis, pre-eclampsia, clinical hyperthyroidism, and respiratory distress [1,2].

The universal practice of performing ultrasonographic studies during the first trimester has led to earlier diagnosis of molar pregnancy; consequently, considerable changes have been observed in recent decades with regard to the clinical presentations and pathologic features of the condition [1,2]. The aim of the present study was to investigate the incidence of the clinical presentations of hydatidiform mole among women in Iran during the past decade and to compare the findings with those from previous studies.

The hospital records of all women attending Akbarabadi Teaching Hospital, Tehran, Iran, between June 21, 1996, and July 3, 2006, with a definitive pathologic diagnosis of molar pregnancy (partial or complete) were reviewed. Institutional Review Board and Institutional Ethics Committee approval was obtained.

There were 264 cases in total, for which the following clinical features were determined: maternal age at diagnosis; gravidity; parity; history of previous mole; estimated gestational age at evacuation; uterine size; and presence or absence of vaginal bleeding, anemia, pre-eclampsia, clinical hyperthyroidism, hyperemesis, and theca lutein cysts. Owing to the large number of Afghan patients, the clinical features of complete and partial moles were compared between Iranian and Afghan women. Statistical analysis was performed using SPSS 15 (SPSS, Chicago, IL, USA). Student t test and χ² test were used for analysis. P<0.05 was considered to be statistically significant.

The clinical presentations of women included in the study were also compared with historic data for 1965–1975 from the New England Trophoblastic Disease Center [1] (Table 1), and with results from previous studies [1–4] (Table 2).

The total number of deliveries during the study period was 106,629, of which 264 (0.2%) involved hydatidiform moles. There were 230 (87.1%) complete and 34 (12.9%) partial moles. Overall, 205 (89.1%) women with complete moles were Iranian and 25 (10.9%) were Afghan. The mean age of women with complete moles was 23.8±5 years (range, 16–48 years). Mean gravidity was 1.8±0.9 (range, 1–8; 186 [70.5%] were gravid 1–2, 71 [26.9%] were gravid 3–5, and 7 [2.7%] were gravid >5) and mean parity was 0.52±0.83 (range, 0–7; 209 [79.2%] were para 0–1, 49 [18.6%] were para 2–5, and 6 [2.3%] were para >5). The estimated mean gestational age at evacuation was 10.1±2.8 weeks (range, 7–23 weeks) and the mean uterine size at evacuation was equivalent to 11.41±3.05 weeks (range, 8–15 weeks). In total, 44 (19.1%) cases of complete mole were asymptomatic, and diagnosis was made via sonography. Twelve (4.5%) women—all of whom had complete moles—had a history of molar pregnancy.

Suction curettage was the only treatment for 167 (63.3%) patients, with 95 (36.0%) receiving prophylactic chemotherapy beforehand.

Table 1
Clinical presentations of complete molar pregnancy.

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Vaginal bleeding</td>
<td>187 (81.3)</td>
<td>297 (97.1)</td>
<td>0.001</td>
</tr>
<tr>
<td>Anemia</td>
<td>32 (13.9)</td>
<td>165 (53.9)</td>
<td>0.001</td>
</tr>
<tr>
<td>Uterine size larger than date</td>
<td>78 (33.9)</td>
<td>156 (51.0)</td>
<td>0.001</td>
</tr>
<tr>
<td>Hyperemesis</td>
<td>69 (30.0)</td>
<td>80 (26.1)</td>
<td>0.847</td>
</tr>
<tr>
<td>Hyperthyroidism</td>
<td>10 (4.3)</td>
<td>21 (6.9)</td>
<td>0.001</td>
</tr>
<tr>
<td>Pre-eclampsia</td>
<td>5 (2.2)</td>
<td>83 (27.1)</td>
<td>0.001</td>
</tr>
<tr>
<td>Theca lutein cysts &gt;6 cm</td>
<td>7 (3.0)</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Asymptomatic</td>
<td>44 (19.1)</td>
<td>0 (0.0)</td>
<td>0.001</td>
</tr>
</tbody>
</table>

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Two (0.8%) women underwent hysterectomy, and a second curettage was performed in 32 (12.1%) cases because of continued vaginal bleeding or retained tissue. Uterine size at evacuation was appropriate for gestational age in 109 (47.4%) of the 230 cases of complete mole, larger than date in 78 (33.9%) cases, and smaller than date in 43 (18.7%) cases. Vaginal bleeding was the only clinical presentation in 119 (45.1%) patients, the bleeding was reported as spotting, and in 83 (31.4%) it was comparable to menstrual flow. There were no cases of respiratory distress or twin molar pregnancy.

There were no significant differences between the cases of complete and partial mole with regard to anemia (32 [13.9%] vs 4 [11.8%]; \( P=0.733 \)); uterine size appropriate for date (109 [47.4%] vs 19 [55.9%]; \( P=0.095 \)); uterine size smaller than date (70 [34.1%] vs 6 [17.6%]; \( P=0.099 \)); hyperemesis (69 [30.0%] vs 2 [5.9%]; \( P=0.351 \)); repeat curettage (29 [12.6%] vs 3 [8.8%]; \( P=0.733 \)); pre-eclampsia (5 [2.2%] vs 0 [0.0%]; \( P=0.631 \)); hyperthyroidism (10 [4.3%] vs 0 [0.0%]; \( P=0.215 \)); and acute abdomen (2 [0.9%] vs 0 [0.0%]; \( P=0.732 \)).

However, vaginal bleeding (187 [81.3%] vs 15 [44.1%]; \( P=0.002 \)); uterine size larger than date (78 [33.9%] vs 2 [5.9%]; \( P=0.001 \)); theca lutein cysts smaller than 6 cm (7 [3.0%] vs 0 [0.0%]; \( P=0.024 \)); theca lutein cysts larger than 6 cm (46 [20.0%] vs 2 [5.9%]; \( P=0.024 \)); and history of abortion (40 [17.4%] vs 2 [5.9%]; \( P=0.034 \)) were significantly more common among women with complete moles than among those with partial moles.

Clinical characteristics were similar between Iranian and Afghan women with complete molar pregnancy. These included vaginal bleeding (162 (79.0%) vs 25 (100.0%); \( P=0.118 \)); anemia (30 [14.6%] vs 2 [8.0%]; \( P=0.241 \)); uterine size larger than date (70 [34.1%] vs 8 [32.0%]; \( P=0.605 \)); hyperemesis (61 [29.8%] vs 8 [32.0%]; \( P=0.126 \)); hyperthyroidism (8 [3.9%] vs 2 [8.0%]; \( P=0.428 \)); pre-eclampsia (4 [1.9%] vs 1 [4.0%]; \( P=0.428 \)); theca lutein cysts larger than 6 cm (6 [2.9%] vs 1 [4.0%]; \( P=0.952 \)); and acute abdomen (1 [0.5%] vs 1 [4.0%]; \( P=0.093 \)).

Because the data-collecting system at Akbarabadi Teaching Hospital was not efficient before 1996, historic data and those from previous studies [1–4] regarding clinical presentations of complete molar pregnancy were used for comparison with the present results (Tables 1,2). The lack of data from the present hospital prior to 1996 was a major limitation of the study.

In the present study, 19.1% of women with complete molar pregnancy were asymptomatic and fewer patients presented with pre-eclampsia, excessive uterine size, theca lutein cysts, anemia, hyperthyroidism, and vaginal bleeding compared with historic controls from the years 1965–1975 [1]. Consistent with the Soto-Wright study [1], this indicates that molar pregnancy is now diagnosed and managed earlier than in previous years.

Improved diagnostic methods have led to earlier identification of molar pregnancy, resulting in changes in the clinical features of the disease at presentation, even in low-income countries.

**Conflict of interest**

The authors have no conflicts of interest.

**References**