A Review of Trophoblastic Disease at the Department of Obstetrics and Gynecology Medical School, Yüzüncü Yıl University

YÜZÜNCÜ YIL ÜNİVERSİTESİ TIP FAKÜLTESİ KADIN DOĞUM KLİNİĞİNDEKİ TROFOBLASTİK HASTALIKLARIN DEĞERLENDİRİLMESİ

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Summary

Objective: The review of gestational trophoblastic disease cases reported in our clinic during a period between July 1995 and December 1998.

Method: Gestational trophoblastic disease was encountered in 12 women during a period between July 1995 and December 1998 were retrospectively studied. During the same period we had 498 deliveries.

Results: The incidence of gestational trophoblastic disease was 24.50 Per 1000 deliveries. In histopathological examination; 11 (91.67 %) cases were diagnosed as hydatidiform mole; and only one (8.33 %) case was diagnosed as invasive mole. The preferred method of treatment for cases of hydatidiform mole was termination with suction curettage and oxytocin perfusion under either local and general anesthesia.

Conclusions: Trophoblastic diseases were common in women with five or more pregnancies from rural areas and our incidence was higher when compared with similar studies: Moreover; our patients had low socio-economic and poor educational status.

Key Words: Hydatidiform mole, Invasive mole, Trophoblastic disease

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Özet

Amaç: Kliniğimizde Haziran 1995 ve Aralık 1998 tarihleri arasında tespit edilen gestasyonel trofoblastik hastalıkların değerlendirilmesi.

Metod: Haziran 1995 ve Aralık 1998 tarihleri arasında, kliniğimizde gerçekleşen 498 doğuma karşılık 12 tane gestasyonel trofoblastik hastalık tespit edilmiş ve bu olgular retrospektif olarak değerlendirilmiştir.

Bulgular: Çalışmamızda trofoblastik gestasyonel hastalık insidansı 24.50 / 1000 doğum olarak bulundu. Histopatolojik incelemeyle 11(91.67%) hastada hidatiform mol ve yanlızca bir hastada (8.33%) invaziv mol tanısı konulmuştur. Molün lokal veya genel anestezi altında, oksitosin perfüzyonu eşliğinde, vakum küretajla terminasyonu kliniğimizce tercih edilen tedavi protokolüdür.

Sonuç: Trofoblastik hastalıkların 5 veya daha fazla gebeliği olan ve kırsal alanlarda yaşayan kadınlarda daha sık olduğu gözlendi ve tespit ettiğimiz insidansın benzer çalışmalarla kıyaslandığında da daha yüksek olduğu görüldü. Aynı zamanda olgularımızın düşük sosyoekonomik ve düşük eğitim seviyesine sahip oldukları tespit edildi.

Anahtar Kelimeler: Hydatiform mol, İnvaziv mol, Trofoblastik hastalık

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Gestational trophoblastic neoplasms include the tumor spectrum of hydatidiform mole, invasive mole (chorioadenoma destruens) and choriocarcinoma (1-3). The exact etiology still remain unclear. It is a pathological change that appears to be caused by abnormal gamatogenesis, fertilization and malignant transformation of trophoblastic tissue (3-8). Recent methods of treatment are very successful, but risks are still present (9-11). The predisposing factors which are known to influence gestational trophoblastic disease are; menarche, parity, age at first pregnancy, history of previous pregnancy with mole, the interval between previous pregnancy, genetic disturbances, malnutrition, viral infection, socio-economic status and Asian descent, as described by many authors (3,12-15)

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Table 1. Symptoms of the cases with trophoblastic diseases

Major Complaints	Mole Hidatidiform	Invasive Mole
Vaginal bleeding	8 (72.70 %)	--
Vaginal bleeding with expulsion of vesicles	1 (9.10 %)	1 (100%)
Absence of fetal movement	1 (9.10%)	--
Abdominal distention with pain and cramps	1 (9.10%)	--
Total	11 (100%)	1 (100%)

The incidence rate, recorded in literature, varied between 0.7 to 10 per 1000 pregnancies (2-5). The incidence appears to be higher in women under 20 years and women over 40 years of age (2,3,12,). In view of recent diagnostic criteria of ultrasonoghraphic examination, pregnancy tests, and histopathological examination, it has become easier to diagnose these diseases (9,16).

We reviewed our cases, and compared the results, which showed differences in clinical characteristics when compared with other reports.

Material and Methods

From the 11'th July 1995 until the 9'th December 1998 we identified 12 cases of gestational trophoblastic neoplasia amongst 498 deliveries in our department. We reviewed age, number of pregnancies, obstetric history, type of the trophoblastic disease and treatment of these cases. The patients who attended to our clinic, with a suspicious history, like vaginal bleeding following a miscarriage or delivery or with an uterine size discordance with gestational age, were all investigated for pregnancy and trophpolastic diseases. Pregnancy tests, chest X-rays, ultrasonography and histopathological examination were done, after dilation and curettage, in order to diagnose possibility of a trophoblastic disease being present

The patients were hospitalized, after the diagnoses. Blood counts, bleeding and clotting times were immediately evaluated and at least two units of matching blood (correct blood group and croosmatched) were provided before treatment.

Results

Amongst 498 pregnant women who were delivered in our department, the incidence of gestational trophoblastic disease was 24.50 per 1000 deliveries. The frequency of hydatidiform mole was one in 45 (2.20%), while the frequency of invasive mole was one in 498 (0.25%). We diagnosed 11 (91.67%) cases of hydatidiform mole and 1(8.33%) case of invasive mole by clinical examination, laboratory tests and histopathological evaluation. We had no cases of choriocarcinoma.

Table 2. The gravidity distribution of the cases with trophoblastic diseases

Number of Pregnancies	Mole Hidatidiform (n)	(%)	Invasive Mole (n)	(%)
1	2	18.20	0	00.00
2	0	00.00	0	00.00
3	1	9.10	1	100.00
4	1	9.10	0	00.00
5 or more	7	63.60	0	00.00
Total	11	100.00	1	100.00

The major complaints, of these 12 patients, are listed in Table 1. In our physical examinations, we found the uterine size was larger than gestational dates in 10 (83.30%) patients, normal in 1(8.30%) patient and smaller in 1(8.30%) patient with gestational trophoblastic disease. In the hydatidiform mole group, two (18.20%) cases were primigravidas and seven (63.60%) cases had five or more pregnancies, as shown in Table 2.

The age distribution of the patients ranged from 15 to 50 years and the age of case with invasive mole was 22. Mean age was 28.5 in hydatidiform mole cases (Table 3). The method of treatment which we preferred in hydatidiform mole cases was suction curettage with oxytocin perfusion, performed under general or local anesthesia. There was one uterine perforation during evacuation. All cases were called for monthly controls, with β subunit human chorionic gonadotropin (β hCG) tests

Table 3. The age distribution of patients

Age (Years)	Mole Hidatidiform (n)	(%)	Invasive Mole (n)	(%)
15-20	3	27.20	0	0.00
21-25	0	0.00	1	100.00
26-30	2	18.10	0	0.00
31-35	1	9.00	0	0.00
36-40	4	36.30	0	0.00
41-45	1	9.00	0	0.00
Total	11	100.00	1	100.00

for one year, in order to find out the recurrences. We detected recurrences in 3 cases.

Discussion

Although great differences in the incidence of hydatidiform mole have been reported in different regions (1-3,5), this variation could be attributed to the genetic factors and problems of collecting reliable statistics. Most reports of high incidence rates come from single hospital reports. Population-based reports from North America (2,3) have rates that are not significantly different from each other.

In USA the estimated incidence of hydatidiform mole, over an eight year period, was 108.4 per 100.000 pregnancies, that was one in every 923 pregnancies (3,5). One report from Latin America, reported the lowest rate (3,4). Overall, rates in these population-based studies, range from 0.02 to 0.12 cases per 1000 pregnancies or births (3,4,12). The results of our study showed a frequency 1/45 (incidence 22 per 1000 deliveries) of hydatidiform mole, and 1/498 (incidence 2.5 per 1000 deliveries) of invasive mole. These rates considered to be significantly high, when compared with the other results (5,12-14). The age distribution of patients with hydatidiform mole was found highest between 20 to 30 (3,14, 15). In our series, the incidence of hydatidiform mole was higher rate in teenagers and over 30 years old patients than women who aged between 20 to 30 years.

The importance of the number of previous pregnancies was obvious in our cases. In hydatidiform mole patients, 18.20% and 63.60% of the cases had parities between two and four, and five or more, respectively. Our study showed that the incidence of hydatidiform mole was increasing with high number of parity.

Recent methods of treatment are very successful, but risks are still present (9-11). We had successful results, in treating hydatidiform mole cases, with suction curettage. There was only one complication which was uterine perforation during suction curettage and the mortality rate was zero. We believe that an adequate curettage with oxytocin infusion, done under local or general anesthesia, will be sufficient in the treatment of hydatidiform mole.

Patients come from rural areas, low socio-economic and poor educational status besides multiparity were important risk factors. All these factors seem to be etiologic reasons. We had an frequency of gestational trophoblastic diseases, 1/41.50 deliveries, which gave us the opportunity to confirm this conclusive statement that "trophoblastic diseases occur more frequently in women of high fertility with high parity, from low socio-economic class".

The still remaining uncertainty of etiologic factors, in this pathology, only leave us the choice of family planning methods as prophylactic measures. We believe, a world wide research done by WHO is necessary for the epidemiological characters of gestational throphoblastic disease.

REFERENCES

1. Bernard DE, Q'uinn AG. Gestational Trophoblastic Diseases. In: DeCherney AH, Pernoll ML, eds. Current Obstetric and Gynecologic Diagnosis and Treatment, 8th ed. East Norwalk, Connecticut. Appleton and Lange. 1994: 967.
2. Miller DS, Murain JR. Classification and staging of gestational trophoblastic tumors. Obstet Gynecol Clin North Am 1988; 15: 477-82.
3. Semer DA, Macfee MS. Gestational Trophoblastic Disease: Epidemiology. Semin Oncol 1995; 22(2): 109-13.
4. Bracken BM, Brinton LA, Hayashi K. Epidemiology of hydatidiform mole and choriocarcinoma. Epidemiol Rev 1984; 6:52-75.
5. Grimes DA. Epidemiology of gestational trophoblastic disease. Am J Obstet Gynecol 1984; 150: 309-18.
6. Surti U, Szulman AE, O'Brien S. Dispermic origin and clinical outcome of three complete hydatidiform moles with 46 XX Karyotype. Am J Obstet Gynecol 1982; 144: 84-7.
7. Wolf NG, Lage JM. Genetic analysis of gestational trophoblastic disease: A review. Semin Oncol 1995; 22(2): 113-20.

8. Lawler SD, Fisher RA, Dent J. A prospective genetic study of complete and partial hydatidiform moles. Am J Obstet Gynecol 1991; 164: 1270-7.

9. Rose PG. Hydatidiform Mole: Diagnosis and Management. Semin Oncol 1995; 22(2): 149-56.

10. Schlaerth JB, Morrow CP, Montz FJ, d'Ablaing G. Initial management of hydatidiform mole 1988; 158: 1299-306.

11. DuBeshter B, Berkowitz RS, Goldstein DP, Cramer DW, Bernstein MR. Metastatic gestational trophoblastic disease: Experience at the New England trophoblastic disease center, 1965 to 1985. Obstet Gynecol 1987; 69: 390-5.

12. Hayashi G, Bracken MB, Freeman DH, Hellenbrand K. Hydatidiform mole in the United States (1970-1977): A statistical and theoretical analysis. Am J Epidemiol 1982; 115: 67-77.

13. McCorriston CC. Racial incidence of hydatidiform mole. Am J Obstet Gynecol 1968; 101: 377-81.

14. Parazzini F, Vecchia LC, Pampallona S, Stat B, Franceschi S. Reproductive patterns and risk of gestational trophoblastic disease. Am J Obstet Gynecol 1985; 152: 866-70.

15. Poen HJ, Djojopranoto M. The possible etiologic factors of hydatidiform mole and choriocarcinoma. Am J Obstet Gynecol 1965; 92: 510-3.

16. DeBaz BP, Lewis TJ. Imaging of gestational trophoblastic disease. Semin Oncol 1995; 22: 130-6.