

Tubal Hydatidiform Mole: A Case Report

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Abstract:

The incidence of ectopic pregnancy is 20 per 1,000 pregnancies. Hydatidiform mole occurs in 1 per 1,000 pregnancies. Thus, the incidence of the ectopic molar gestation is very rare. We report a case of tubal molar pregnancy diagnosed at the systematic histology examination of an ectopic pregnancy. A 22 years old second gravida presented with five weeks amenorrhea, severe lower abdominal pain and mild vaginal bleeding for one day; and excessive sweating and restlessness for 6 hours. On clinical examination, she had severe anaemia, pulse was 120 per minute and blood pressure was 80/60 mm hg. The gynecological examination was difficult because of lower abdominal pain and tenderness. She was diagnosed as a case of ruptured tubal pregnancy with shock. Pelvic ultrasound revealed an irregular echogenic mass in the left adnexa. She was resuscitated and emergency laparotomy was done: it revealed a left-sided ruptured ampullary ectopic pregnancy. Left salpingectomy was performed. The systematic histologic test identified an ectopic molar pregnancy. The patient was followed with weekly quantitative B-hCG titers until three successive B-hCG levels were negative. It is important that clinicians routinely send for histological examination of tubal specimens in ectopic pregnancy in order to diagnose cases of ectopic molar gestations early and provide appropriate post treatment follow up.

Keywords: Ectopic pregnancy, molar pregnancy.

Introduction:

Ectopic pregnancy occurs in 20 per 1,000 pregnancies¹. Molar changes may also be found in ectopic pregnancies. The incidence of hydatidiform moles is 1 per 1,000 pregnancies^{2,3}. Thus, the ectopic molar gestation is very rare. Molar changes could be either partial or complete. Its malignant potential is similar to that of an intrauterine molar pregnancy⁴.

Patient and case report

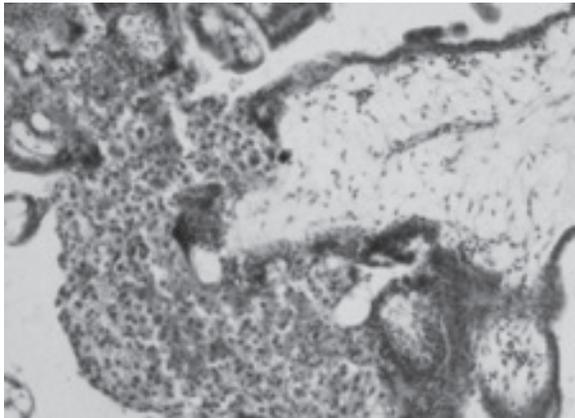
Mrs. AR age 22 years, mother of one child, was admitted in the Department of Obstetrics and Gynaecology of Sir Salimullah Medical College and Mitford Hospital in May 2013 with history of amenorrhoea for five weeks; severe pain in lower abdomen and mild per vaginal bleeding for one day; excessive sweating and restlessness for 6 hours. On clinical examination, she had severe anaemia, pulse was 120 per minute and blood pressure was 80/60

mm Hg. Gynecological examination was difficult because of lower abdominal pain and tenderness. Pelvic ultrasound revealed an irregular echogenic mass in the left adnexa. She was diagnosed as a case of ruptured tubal pregnancy with shock. She was resuscitated, with infusion of crystalloid solution and blood transfusion. Antibiotics was given and patient was catheterized. Emergency laparotomy was done. Abdomen was full of free and clotted blood. It revealed a left-sided ruptured ampullary ectopic pregnancy. The uterus, left ovary, right tube and ovary were normal. After clamping the tube abdomen was cleaned by sucking the blood. Left sided salpingectomy was performed. Her histopathology report revealed haydatidiform mole in the resected fallopian tube.

On histological examination, there were chorionic villi showing trophoblastic proliferation and hydropic changes (Figure 1). Figure 2 shows wall of the

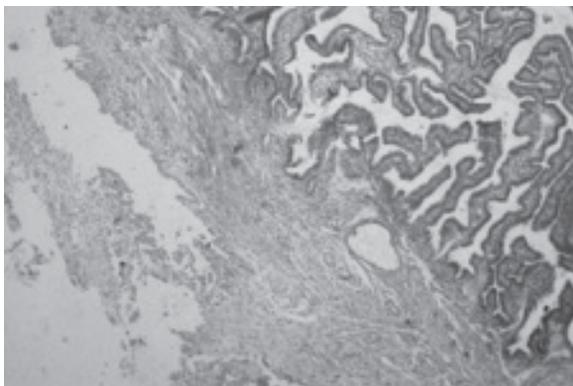
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Fallopian tube. Based on these findings, the possibility of a molar pregnancy was diagnosed and serum β hCG level determination was sent. Postoperatively, on the day of surgery, serum β hCG was 5308 mIU/ml. Her post-operative period was otherwise uneventful. Follow up was done including weekly quantitative β hCG titers until three successive β hCG levels were negative. The tests showed a decreasing trend and turned negative at the end of the 6th weeks. Barrier contraception was advised for at least 1 year during which she was also on regular follow-up.



Proliferation of cytotrophoblast and syncytiotrophoblast (x 220)

Fig.-1: *Trophoblastic hyperplasia with hydropic changes.*



Wall of the fallopian tube x220

Fig.-2: *Wall of the Fallopian tube.*

Discussion:

Clinically, tubal molar pregnancy mimics normal tubal ectopic pregnancy and, therefore, makes the diagnosis difficult⁵. However, provisional diagnosis is

made during surgery and histopathological examination can determine the final diagnosis.

Hydatidiform mole is basically an abnormal conceptus, due to abnormal fertilization, which can be sub-classified into complete and partial moles based on morphological, pathological, and genetic differences^{3,4}.

In a complete mole, the chromosomal complement is 46,XX with the genome paternal in origin. This is usually caused by fertilization of an empty ovum by a haploid spermatozoon, which subsequently duplicates. Occasionally cases occur by fertilization with two sperm⁵. In contrast, partial moles arise from dispermic fertilization of a haploid ovum, resulting in a triploid genome.

Molar changes may even be found in cervical pregnancies^{6, 7}. Molar changes can be detected by transvaginal color Doppler ultrasonography. Magnetic resonance imaging is also helpful in localizing the lesion. Conservative fertility-sparing management was found successful in a reported case of cervical molar pregnancy⁷. Cornual pregnancy itself is a very rare condition and a challenging diagnosis to make. Rupture of the horn does not usually take place until the twelfth week of gestation but, when it does, there is nearly always severe bleeding, which makes the condition extremely dangerous. Molar changes are even found in cornual pregnancies^{8,9}. Reported cases of molar changes in ovarian pregnancy are also found in the literature¹⁰.

Histologically, molar pregnancy is an abnormal gestation characterized by the presence of hydropic change affecting some or all of the placental villi, accompanied by circumferential proliferation of trophoblasts.

Although β hCG levels are elevated in tubal molar pregnancies, they are generally in the lower range, because implantation in the fallopian tube might preclude adequate vascularization, thereby leading to low levels of hCG. There is no distinctive difference in β hCG levels between molar tubal pregnancies and ectopic pregnancy. Thus, an early ectopic molar pregnancy is not distinguishable from a nontrophoblastic tubal pregnancy on the basis of hCG levels¹¹.

Gestational choriocarcinoma associated with ectopic pregnancy is extremely rare event: its theoretic incidence is one in 5033 tubal pregnancies. The

prognosis of choriocarcinoma is better in the tube than in the uterus because molar pregnancy in the tube is removed and not left intact, as in the uterus¹².

Monitoring β hCG titers following conservative management of suspected ectopic pregnancies is important, not only to diagnose persistent ectopic gestation, but also to rule out the presence of malignant trophoblastic diseases¹³. The current trend in the treatment of ectopic pregnancies is through conservative surgery and monitoring of β hCG titers to avoid missing a choriocarcinoma developing in an ectopic gestation, even though this is a very rare condition¹⁴.

Histopathological examination of conception products remains the current gold standard for the diagnosis of gestational trophoblastic neoplasia. There is also a possibility of over-diagnosis by histological examination, especially in early ectopic tubal pregnancies, due to a more florid extra-villous trophoblastic proliferation compared with evacuated uterine products of conception³. Extra caution should be taken to strictly apply the morphological criteria of circumferential trophoblastic proliferation, hydropic changes, scalloped villi and stromal karyorrhexis for diagnosis¹⁵.

Conclusion:

Ectopic molar pregnancy is a rare condition, which can occur at any place in the pelvic cavity. Invasive mole and choriocarcinoma might even follow such a pregnancy. However, ultrasonography might not be able to fully diagnose ectopic molar pregnancies. Histopathological examination of the product of conception is the current gold standard for the diagnosis. It is important that clinicians send histological examination of tubal specimens in ectopic pregnancy routinely in order to diagnose cases of ectopic molar gestations early and take appropriate and timely measure for post treatment follow up and management.

References:

1. Szulman AE, Surti U. The syndromes of hydatidiform mole. I. Cytogenetic and morphologic correlations. *Am J Obstet Gynecol.* 1978 Jul 15;131(6):665–71.
2. Szulman AE, Surti U. The syndromes of hydatidiform mole. II. Morphologic evolution of the complete and partial mole. *Am J Obstet Gynecol.* 1978 Sep 1;132(1):20–7.
3. Sebire NJ, Lindsay I, Fisher RA, Savage P, Seckl MJ. Over diagnosis of complete and partial hydatidiform mole in tubal ectopic pregnancies. *Int J Gynecol Pathol.* 2005;24(3):260–4.
4. Abdul MA, Randawa AJ, Shehu SM. Ectopic (tubal) molar gestation: report of two cases. *Niger J Clin Pract.* 2008;11(4):392–3.
5. Chauhan S, Diamond MP, Johns DA. A case of molar ectopic pregnancy. *Fertil Steril.* 2004;81(4):1140–1.
6. Wee HY, Tay EH, Soong Y, Loh SF. Cervical hydatidiform molar pregnancy. *Aust N Z J Obstet Gynaecol.* 2003;43(6):473–4.
7. Aytan H, Caliskan AC, Demirturk F, Koseoglu RD, Acu B. Cervical partial hydatidiform molar pregnancy. *Gynecol Obstet Invest.* 2008;66(2):142–4.
8. Chauhan MB, Chaudhary P, Dahiya P, Sangwan K, Sen J. Molar cornual ectopic pregnancy. *Acta Obstet Gynecol Scand.* 2006;85(5):625–7.
9. Zite NB, Lipscomb GH, Merrill K. Molar cornual ectopic pregnancy. *Obstet Gynecol.* 2002;99(5 Pt 2):891–2.
10. Church E, Hanna L, New F, Uku A, Awad H, Watson AJ. Ovarian molar pregnancy. *J Obstet Gynaecol.* 2008;28(6):660–1.
11. Chase JS, Check JH, Nowroozi K, Wu CH. First-trimester serum levels of the beta-subunit of human chorionic gonadotropin in a tubal molar pregnancy. *Am J Obstet Gynecol.* 1987;157:910.
12. Pier luigi D. Gestational choriocarcinoma arising in a cornual pregnancy. *European journal of obstetrics and gynecology and reproductive biology.* 2001;96:116–118.
13. Rotas M, Khulpateea N, Binder D. Gestational choriocarcinoma arising from a cornual ectopic pregnancy: a case report and review of the literature. *Arch Gynecol Obstet.* 2007;276(6):645–7.
14. Bakri YN, Amri A, Mulla J. Gestational choriocarcinoma in a tubal ectopic pregnancy. *Acta Obstet Gynecol Scand.* 1992;71(1):67–8.
15. Burton JL, Lidbury EA, Gillespie AM, Tidy JA, Smith O, Lawry J, et al. Over-diagnosis of hydatidiform mole in early tubal ectopic pregnancy. *Histopathology.* 2001;38(5):409–17.