

A Case of Chronic Ectopic Pregnancy Mimicking Pelvic Malignancy

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A case of chronic ectopic pregnancy mimicking pelvic malignancy is presented, indicating significance of ectopic pregnancy in discrimination of pelvic masses. A heterogenous solid mass measuring 72x50x44 mm was sonographically visualized in the right adnexal area of a 24-year-old primiparous woman presenting with six-week-long intermittent pelvic pain and irregular vaginal bleeding. Beta-human chorionic gonadotropin (hCG) and CA 125 levels were respectively 6.02 IU/ml and 205.4 U/ml. Right salpingoophorectomy was done and histopathologic examination revealed ectopic pregnancy. Chronic ectopic pregnancy usually presents with prolonged clinical symptoms which are often misleading. Although the adjoin use of sonography and beta-hCG assay increases diagnostic accuracy, a negative beta-hCG value does not rule out chronic ectopic pregnancy. Increased awareness of chronic ectopic pregnancy allows its preoperative diagnosis and prompt treatment.

Key Words: Beta hCG, Chronic ectopic, Ectopic pregnancy, Malignancy pelvic

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Ectopic pregnancy is the leading cause of pregnancy-related death in the first gestational trimester. Chronic ectopic pregnancy is a type of tubal ectopic pregnancy which causes repetitive bleeding attacks that gradually separate tubal wall into fragments. Decomposition of tubal wall due chronic bleeding provokes an inflammatory response which usually results in formation of a pelvic mass. Chronic ectopic pregnancy is characterized by prolonged clinical course, delayed diagnosis, lower beta-human chorionic gonadotropin (hCG) levels, lower chance of tubal rupture, minimal or absent clinical symptoms and sonographic image of a complex mass in the adnexal region and/or Douglas pouch.¹ A case of chronic ectopic pregnancy mimicking pelvic malignancy is presented here. The present case report aims to remind of chronic ectopic pregnancy in differential diagnosis of pelvic masses.

Case Report

A 24-year-old primiparous woman admitted to the emergency unit due to intermittent pelvic pain and irregular vaginal bleeding which continued for six weeks. It was learnt that she delivered vaginally four months ago after an uncomplicated gestational period. She claimed that she nursed her baby regularly and had no menstrual bleeding after delivery. It was

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also learnt that she did not use any contraceptive method.

Physical examination revealed an approximately 6-cm-wide, solid and mobile mass in the right adnexal region. Transvaginal ultrasonography showed a normal-sized uterus and ovaries. The endometrium was normal in thickness and appearance without an intrauterine gestational sac. Adjacent to and separate from the right ovary, a heterogenous mass measuring 72x50x44 mm was visualized. This heterogenous mass consisted of a smaller avascular mass continuous with prominent tortuous vessels demonstrating low-resistance arterial flow on pulsed Doppler. There was no identifiable extrauterine gestational sac or free pelvic fluid.

In order to rule out ectopic pregnancy and malignancy, beta hCG and tumor marker assays were studied. A beta-hCG titer of 6.02 IU/ml (normal: 0-10) was obtained by a Beta-hCG Micro-ELISA Test Kit (Leinco Technologies Inc, St Louis, United States) which had a sensitivity of 0.8 mIU/ml. Cross-reactivities of monoclonal antibodies used in this assay are 0.18%, 0.37%, and 0.05% against hTSH, hLH, and hFSH, respectively.

Tumor marker levels were as follows: AFP: 1.42 IU/ml (normal: 0-11.3, Immulite 2000 AFP kit, Siemens Diagnostics, Germany), CEA: 0.493 ng/ml (normal: 0-4.3, Immulite 2000 CEA kit, Siemens Diagnostics, Germany), CA 125: 205.4 U/ml (normal: 0-35, Immulite 2000 OM-MA kit, Siemens Diagnostics, Germany), CA 15-3: 30.91 U/ml (normal: 0-30, Immulite 2000 BR-MA, Siemens Diagnostics, Germany), CA 19-9: 3.64 U/ml (normal: 0-39, Immulite GI-MA, Siemens Diagnostics, Germany).

Abdominal computed tomography (CT) was performed with suspicion of a pelvic malignancy due to the persistent

clinical presentation, Doppler findings and elevated Ca125 levels. Abdominal CT scans showed a multiloculated cystic mass extending from the right adnexal region to the anterior uterine wall.

Within three days of preoperative evaluation, the patient underwent laparotomy. Right salpingoopherectomy was performed and foci of endometriosis were cauterized. Gross pathology of the adnexal mass revealed a dilated blood containing fallopian tube measuring $8 \times 5 \times 5$ cm. Frozen sections of the adnexal mass revealed it to be benign. Per- and post-operative periods were uncomplicated and the patient was discharged from hospital three days after surgery. Further histopathologic examination of the old clots and debris in the tube showed immature chorionic villi and conception products consistent with ectopic pregnancy.

Discussion

Although there is a tendency to evaluate ectopic pregnancy as a uniform clinical picture, it might present with different signs and symptoms that may resemble other clinical situations including appendicitis, gastrointestinal disorders and urinary tract problems. Pelvic pain, vaginal bleeding and make up the classical symptomatic triad of ectopic pregnancy while pelvic cramps, dysuria, bloating may occur as well as lower back, abdominal or shoulder pain.

Chronic ectopic pregnancy leads to repetitive bleeding attacks which eventually tear tubal wall. Hemorrhages in small quantities organize into blood clots and make up pelvic masses together with tubal pieces and trophoblastic tissues. This organized ectopic mass triggers inflammatory reactions to which also active trophoblastic tissue contributes. Inflammatory reactions may lead to formation of adhesions around the ectopic mass.¹

Although the related studies in literature report a frequency of 6% to 20% for chronic ectopic pregnancy, its true incidence is still unknown. The incidence of chronic ectopic pregnancy is estimated to be even higher due to inconsistencies associated with low beta hCG levels or indefinite sonographic findings.^{1,2}

Women with chronic ectopic pregnancy usually have subtle and subacute or chronic clinical findings such as vague pelvic pain and irregular vaginal bleeding which may interfere with other gynecologic problems including leiomyomas, ovarian torsion, endometriomas, hemorrhagic cysts, vascular tumors or acute pelvic inflammatory disease presenting with either pyosalpinx or tubo-ovarian abscess.^{1,2}

Since the diagnosis of chronic ectopic pregnancy depends on high suspicion index and exclusion of other gynecologic pathologies, the subjects are not frequently determined until

laparotomy.^{1,2} The present case is defined as chronic ectopic pregnancy due to prolonged and indistinct clinical symptoms, delayed diagnosis, negative beta hCG titer and sonographic image of a complex adnexal mass. The diagnosis of ectopic pregnancy is confirmed by the histopathological report.

In case of chronic ectopic pregnancy, beta hCG levels are usually low, thus they can indicate pregnancy occasionally.¹ Older reports indicating negative beta hCG titers as frequently as 50% were attributed to less sensitive serum beta hCG assays.^{1,2} During the past two or three decades, the number of chronic ectopic pregnancy subjects with negative or low beta hCG levels have decreased dramatically, indicating the improvement in the sensitivity of the serum hCG assays. That's why; chronic ectopic pregnancy accompanied with a negative serum hCG titer can be considered as a rare clinical situation.

Despite the highly sensitive modern tests, some cases of chronic ectopic pregnancy may yield negative beta hCG titers due to spontaneous inactivation of trophoblastic tissues, insufficient beta hCG production by persistent active trophoblasts or enhanced clearance of serum beta hCG associated with an unspecified mechanism.²

As a sensitive and modern beta hCG assay was used in the present case, negative beta hCG titer might be attributed to either natural degeneration of active trophoblastic tissues or lack of beta hCG production by active trophoblasts.

Chronic ectopic pregnancy displays non-specific and different sonographic images which may help to exclude intrauterine pregnancies and distinguish other types of heterogeneous, highly vascular and well-organized adnexal masses. Doppler flow is characteristically detected at the peripheral regions of the adnexal mass, thus it demonstrates the arteriovenous shunts and aberrant vessels. Small amounts of free fluid may be present in the Douglas pouch or elsewhere in the pelvis.^{1,2}

The outcome of chronic ectopic pregnancy differs among the subjects. The ectopic mass can resolve progressively after expectant or medical treatment in some patients whereas acute tubal rupture may occur in a few patients. However some patients, as in the present case, may demonstrate persistent clinical symptoms, negative beta hCG titers, elevated tumor marker levels and Doppler findings which reminds of pelvic malignancies. Surgical intervention is required in case of acute tubal rupture and interference with pelvic malignancy.^{1,2}

Consequently, chronic ectopic pregnancy is not an uncommon clinical entity which is rarely diagnosed prior to surgery. Chronic ectopic pregnancy should be considered in differential diagnosis of pelvic masses even if beta-hCG tests are negative and clinical symptoms are disguised. Although the ad-joint use of transvaginal USG and beta-hCG assay increases diagnostic accuracy, a negative beta-hCG value does not rule

out chronic ectopic pregnancy.

Since increased awareness of chronic ectopic pregnancy allows its early recognition, the present case is being reported to remind that this clinical entity can occur in any woman at reproductive age, despite permanent sterilization, marital status, menstrual history, clinical and sonographic findings.

Pelvik Malignansiyi Taklit Eden Kronik Ektopik Gebelik Olgusu

Pelvik malignansiyi taklit eden bir kronik ektopik gebelik olgusu sunularak pelvik kitlelerin ayırıcı tanısında ektopik gebeliğin önemi vurgulanmıştır. Altı haftadır devam eden aralıklı pelvik ağrı ve düzensiz vajinal kanama yakınmalarıyla merkezimize başvuran 24 yaşındaki primipar kadının ultrasonografik değerlendirmesinde sağ adneksiyel alana yerleşmiş 72x50x44 mm büyüklüğünde heterojen solid bir kitle saptandı. Olgunun beta koryonik gonadotropin (hCG) ve CA 125 düzeyleri, sırasıyla 6.02 IU/ml ve 205.4 U/ml idi. Sağ salpingooferektomi sonrası gerçekleştirilen histopatolojik incelemede ektopik gebelik belirlendi. Sunulan olguda da görüldüğü üzere; kronik ektopik ge-

belik, çoğunlukla yanıltıcı olabilen uzamış klinik belirtilerle seyrederek. Ultrasonografi bulgularının ve beta hCG değerlerinin birlikte yorumlanması etkilenmiş olgulara tanı konulmasını kolaylaştırır da beta hCG düzeyinin 0-10 IU/ml arasında olması kronik ektopik gebelik olasılığını tamamen ortadan kaldırmaz. Ancak pelvik kitlelerin ayırıcı tanısında kronik ektopik gebeliğin dikkate alınması, etkilenmiş olguların erken dönemde belirlenmesine ve tedavi edilmesine olanak sağlar.

Anahtar Kelimeler: Beta hCG, Ektopik gebelik, Kronik ektopik, Malignansi, Pelvik

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