Cervical Pregnancy: A Case Report

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Abstract

Introduction: Cervical pregnancy constitutes 0.1% of all ectopic pregnancies. It is associated with a significant risk of life-threatening severe hemorrhage.

Case: A 33-years-old woman gravida 8, para 2, abortus 5 and living children 2 who had left oophorectomy operation due to ovarian cyst was referred to our hospital with pelvic pain and delayed menstrual period. By vaginal ultrasonographic examination, cervical pregnancy sac which was 7.5x3 mm in diameter and compatible with 5 weeks and 1 day of gestation was found in the cervical canal. There was no significant subchorionic bleeding area. The patient was hospitalised. Beta-human chorionic gonadothropin (β-hCG) level was 4532 mIU/ml on admission. Since the pregnancy was very early, aspiration&curettage was applied. Ultasonographic and physical findings after curettage were normal and the patient was discharged in the following day.

Conclusion: Cervical pregnancy is associated with life-threating hemorrhage. Only in early pregnancy surgical interventions can be applied safely.

Keywords: Cervical ectopic pregnancy.

Servikal gebelik: olgu sunumu

Giriş: Servikal gebelikler tüm ektopik gebeliklerin %0.1'ini oluşturur. Hayatı tehdit edebilecek kadar aşırı kanama en önemli komplikasyondur.

Olgu: 33 yaşında, gebelik 8, parite 2, abortus 5, yaşayan 2 çocuğu olan olgunun 2 yıl önce over kisti nedeniyle geçirilmiş sol ooforektomi öyküsü mevcuttu. Adet gecikmesi ve kasık ağrısı şikayeti ile başvuran olguda yapılan vaginal ultrasonografik incelemede servikal kanal içerisinde yaklaşık 7.5x3 mm çaplı, konturları düzgün, içerisinde 3 mm'lik yolk sak ve milimetrik CRL'si bulunan 5 hafta 1 gün ile uyumlu servikal gebelik izlendi. Belirgin subkoryonik kanama alanı yoktu. Hastaneye yatırılan olguda β-hCG düzeyi 4532 mIU/ml olarak ölçüldü. Erken gebelik saptanması nedeniyle aspirasyon küretaj uygulandı. Küretaj sonrası ve muayene bulguları normal olarak değerlendirilen olgu bir gün sonra taburcu edildi.

Sonuç: Servikal gebelikler hayatı tehdit edebilecek düzeyde kanama riski taşımaktadır. Ancak erken gebelik olgularında güvenli cerrahi müdahale uygulanabilir.

Anahtar Sözcükler: Servikal ektopik gebelik.

Background

Cervical pregnancy constitutes 0.1% of ectopic pregnancies and it is a life threatening condition.[1] Definite etiology of cervical pregnancy is not known. There is a relation with past dilatation and curettage, Asherman's syndrome, cesarean section,

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infertility, invitro fertilization therapy, intrauterin device usage history and embryonal chromosome abnormalities.[1] Sonographic findings of cervical pregnancy are presence of pregnancy sac at endocervical localization and trophoblastic invasion. Pathologic diagnostic criteria of cervical pregnancy are presence of endocervical glands against placental region, beginning the invasion of placenta into cervix, being of some part or whole of the placenta at under the uterine entry region or peritoneal foldings at the front or back face of uterine and lack of fetal elements in endometrial cavity. There is a living fetus in 60% of the cervical pregnancies.[2] Most of the patients are low parity pregnants and the most important problem in conservative treatment is excessive bleeding. Conservative treatment forms are chemotherapy with methotrexate, KCl injection into the sac. Hysterectomy is more offered in second or third trimester of cervical pregnancies or uncontrolled bleedings.[1]

Case

Case who is 33-years-old, married for 16 years, had 8 pregnancy, 2 birth, 5 abortus, 2 living children had a history of left ooferectomy because of ovarian cyst two years ago. She admitted with complaints of menstrual delay and inguinal pain and there was seen approximately 7.5x3 mm diameter, smoothly contoured, having inside 3 mm yolk sac and millimetric CRL that is consistent with 5 week 1 day pregnancy in cervical canal in vaginal ultrasonography. There was no marked subchorionic bleeding area (Figure 1). Endometrium thickness was 14 mm in our case and myometrium echogenicity was normal. β-HCG level is measured as 4532 mIU/ml. There was no vaginal bleeding in her physical examination. Blood biochemistry and hemogram parameters were normal. Aspiration curettage is applied because of determined early pregnancy. Ultrasonography was normal after curettage and vital findings were normal during following, there was no vaginal bleeding and case is discharged at fist day after curettage. Pathology results were nonproductive placental tissue as pathology doctors reported.

Discussion

As ectopic pregnancy incidence was 16 over 1000 pregnancies in 1989 in USA, in recent years this ratio increased to the levels of five folds compared to 1970s.[3] We face the maximal ectopic pregnancy incidence between 35-44 ages with a rate of 20.8 pregnancies over 1000.[3] Cervical preg-

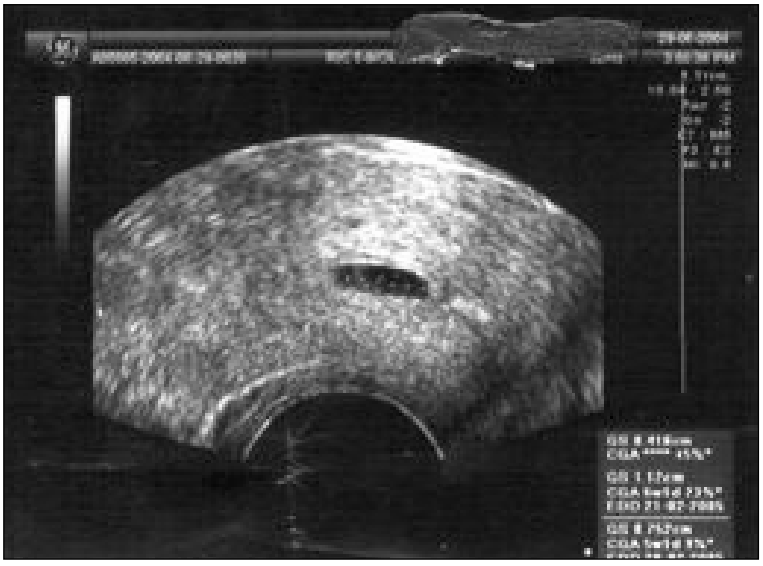

Figure 1. Pregnancy sac at cervical canal.

nancy is a life-threatening and rarely seen type of ectopic pregnancy. Cervical pregnancy incidence is 1 over 2.400 to 50.000 pregnancies in USA.[3] In a study by Ushakov et al, it is reported that the most seen symptom of cervical pregnancy is vaginal bleeding with a ratio of 91% and then inguinal pain with a ratio of 2%.[1] There was no vaginal bleeding in the physical examination of our case. There was only inguinal pain and menstrual delay complaint. There is a relationship between cervical pregnancy and past dilatation and curettage history, Asherman's syndrome, cesarean section, infertility, IVF treatment, intrauterine device usage history and embryonic chromosomal abnormalities.[1] There was no other risk factor except past dilatation and curettage history in our case.

It is hard to diagnose cervical pregnancy clinically. Diagnose has been abortus imminens, incomplete abortus or missed abortus preoperatively in 50% of the patients in a study made by Nelson et al.[3] With the using of ultrasonography in diagnosing cervical pregnancy can be differentially diagnosed from other types of abortus. Although 4.5% false diagnose is made, when ultrasonography is not used 46.2% case take false diagnose.[3] Transvaginal ultrasonography must be preferred in cervical pregnancies but, the best results are always made with a combination of transvaginal and abdominal sonography.[2] In our case cervical pregnancy diagnose was made with transvaginal ultrasonography. Ushakov et al determined live cervical pregnancy in a ratio of 62.5% while they determine 10.8% early cervical pregnancy and 13.8% missed cervical pregnancy.

Serum β-hCG levels are used in diagnose of cervical pregnancy and in the following of conservative treatment. Ushakov et al reported serum β-hCG levels as 54.1-137,000 mIU/ml at the moment of diagnose in their study. In our case serum β-hCG level was 4532 mIU/ml when it is diagnosed. β-hCG followings are carrying importance especially in observation of medical treatment.

Main target in the treatment of cervical pregnancy is preventing bleeding by ending the pregnancy. Aspiration and curettage are the most frequently used choice in the treatment of cervical pregnancy. Aspiration and curettage are performed in approximately half of the patients.[1] Although aspiration and curettage seem as a benign treatment method severe bleeding can begin after ablation of placenta as Schneider described.[4] Some approaches in order to reduce the blooding of cervices can be administered preoperatively to solve this problem. This methods are ligation of cervical branches of uterine artery transvaginally, Shirodkar type cerclage, embolization of uterine artery by angiography or intracervical vasopressine injection.[1,5] However, in that case a preoperative administration to reduce cervical bleeding was not done because of early cervical pregnancy and unexpectation of deep trophoblastic invasion. An excessive bleeding was not observed during or after the operation.

In the treatment of cervical pregnancy hysterectomy, conservative abdominal surgery (ligation of bilateral internal iliac or uterine arteries or cervical hysterectomy) and medical treatments can be administered besides aspiration and curettage. Today hysterectomy is preferred in patients 45 years and above, having high parity or having diagnose of cervical pregnancy with uterine pathology.[1] Methotrexate or potassium chloride can be administered in medical treatment. Methotrexate can be administered in patients with a pregnancy age of under 10 weeks and also hemodynamically stabile, with minimal or no bleeding and in patients without active renal or liver disease, leucopenia or trombositopenia.[5] For this reason methotrexate is an agent that can be used systemic or local. Pregnancy sac collapse due to local methotrexate administration; bone marrow depression, stomatitis, anorexia, vomiting, nausea, diarrhea, acute or chronic hepatotoxicity, pulmoner fibrosis, alopecia and photosensitivity are the side effects that can be seen due to systemic administration of methotrexate.[6] Potassium chloride is an agent that can be administered locally into the sac as injection.[7]

As a result cervical pregnancy is a type of ectopic pregnancy carrying excessive bleeding risk. However, surgical intervention can be administered safely in early pregnancy cases.

References

1. Ushakov FB, Elchalal U, Aceman PJ, Schenker JG. Cervical pregnancy: Past and future. *Obstet Gynecol Surv* 1997; 52: 45-59.

2. Frates MC, Benson CB, Doubilet PM et al. Cervical ectopic pregnancy: Results of conservative treatment. *Radiology* 1994; 191: 773-5.
3. Ectopic pregnancy. In: Speroff L, Glass RH, Kase NG. Editors. Clinical Endocrinology and Infertility. Baltimore: Williams & Wilkins. 1994: 947-66.
4. Nelson RM. Bilateral internal iliac artery ligation in cervical pregnancy: conservation of reproductive function. *Am J Obstet Gynecol* 1979; 15; 134: 145-50.
5. Dreizin DH, Schneider P. Cervical pregnancy. *Am J Surg* 1957; 93: 27-40.
6. Honey L, Leader A, Claman P. Uterine artery embolization: A successful treatment to control bleeding cervical pregnancy with a simultaneous intrauterine gestation. *Hum Reprod* 1999; 14: 553-5.
7. Bai SW, Lee JS, Park JH, Kim JY, Jung KA, Kim SK, Park KH. Failed methotrexate treatment of cervical pregnancy. Predictive factors. *J Reprod Med* 2002; 47: 483-8.
8. Doubilet PM, Benson CB, Frates MC, Ginsburg E. Sonographically guided minimally invasive treatment of unusual ectopic pregnancies. *Ultrasound Med* 2004; 23: 359-70.