Rupture of a Rudimentary Horn Pregnancy

RUDİMENTER HORN GEBELİK RUPTURU

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SUMMARY

Objective: To present a rare *cases of rupture of* a *noncommunicating rudimentary horn pregnancy.*

Institution: SSK Ege Maternity and Teaching Hospital.

Materials and Methods: The proceeding to 16 gestational weeks, pregnancy, when the rudimentary horn ruptured.

Result: The patient had signs and symptoms of massive hemoperitoneum. An emergency exploratory laparotomy revealed rupture of the gravid right rudimentary horn and the fetus was lying free between the bowels, was delivered as a death fetus.

Conclusion: This reproductive complication must be treated successfully by prompt excision of ruptured right rudimentary horn and adnexa.

Key Words: Rudimentary horn pregnancy, Uterin rupture

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ÖZET

Amaç: Nadir görülen nonkomenikan durimenter horn gebelik olgusunu sunmak.

Çalışmanın Yapıldığı Yer: SSK Ege Kadın Hastalıkları ve Doğumevi Hastanesi

Materyal ve Metod: 16 haftalık gebelik büyüklüğüne ulaşan rudimenter horn gebelik rüptüre oldu.

Bulgular: Nasta masif hemaperitoneum semptom ve bulgularıyla geldi. Acil eksploratif laparotoml yapıldığında sağ rudimenter rüptüre horn gebelik tespit edildi ve bağırsakların arasındaki ölü fetus alındı.

Sonuç: Bu reproduktif komplikasyon; rüptüre olan {rudimenter horn gebelik ve adneksin acilen çıkarılmasıyla başarıyla tedavi edilir.

Anahtar Kelimeler: Rudimenter horn gebelik, Uterln rüptür

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Uterine malformations has an incidence of 1/5000 in genital embryological anomalies (10). Pregnancy In the rudimentary horn is an extremely rare form of ectopic gestation with an incidence of 1/100.000 of all pregnancies (20). Less than 5% of the reported cases have been diagnosed preoperatives (3).

Rudimentary horn is one of the rarest congenital uterine anomalies and consist of a relatively normal appearing uterus on one side with a rudimentary horn on the other (4). The rudimentary horn may consist of a functional muscle with no functional endometrium. Pregnancy in the rudimentary horn is possible only when transperitoneal migration of either spermatozoa or fertilized ovum from the contralateral side occurs. In 90% of the cases reported, rupture of the rudimentary horn occurred in the 2°° trimester (3). On occasion a pregnancy may advance into the 3 trimester with a viable fetus in an intact horn, or rarely in the peritoneal cavity as a secondary abdominal pregnancy following rupture. In the past 3 decades improved diagnostic methods with ultrasound scan may have increased the accuracy of diagnosis. Prompt surgical procedure and availability of blood transfusion have resulted in a lower maternal mortality rate. This report presents a case of rupture of a pregnant rudimentary horn with 16 week of death fetus.

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CASE REPORT

A 22 years old primigrávida was first seen in our hospital at 16 week of gestation for irregular prenatal care on November 14, 1994. The vaginal examination revealed the gestational uterus with right adnexal enlargement. Ultrasonographic examination showed intraabdominal fluid and 16 week of death gestation in right uterine cornu and empty the left one.

Menarche and subsequent menstruel cycles were regular, and normal, but she had a history of slight dysmenorrhea since menarche. The exact date of last

menstrual period was June 27, 1994, compatible with gestational weeks. In her family history, one of her elder sister has uterus didelphys and the other is infertil since 5 years. There was no medication of her mother during pregnancies. Before 8 weeks she had 2 month of alive gestation in right uterine cavity and empty left one by a suburban hospital ultrasonographic examination.

Thereafter, she had visited a peripheral hospital for symptomatic relief of episode of abdominal pain and did not appear until she was hospitalized.

On November 14. 1994, she was transferred to the Department of Obstetrics and Gynecology. SSK Ege Maternity and Teaching Hospital, due to acute pain in her abdomen just after coitus. At the emergency room, ultrasonography was performed, and revealed a death fetus in right uterine cavity and the massive fluid in cul de sac. Fetal bi-parietal diameter and femoral lenght were all compatible with 16 weeks gestation. Pelvic examination showed the cervix to be closed, thick and deviated anteriorly to the right.

On examination the patient was in the state of hypovolemic shock. She was pale but respiratory and cardiovascular systems were with in normal limits. A coagulation profile was normal.

There was marked distention of the abdomen, more so in the lower abdomen. Muscle guarding and rigidity and rigidity with rebounding pain were present. Liver and spleen were not palpable. Cullen's sign was positive. Bc'h iliac fossae and posterior pouch were tender. Uterine size could not made out clearly. A tentative diagnosis of acute uterine rupture was made, but acute appendicitis was not ruled out.

She was in great pain and complained of shoulder pain, but not vaginal bleeding or vomiting. Blood pressure was 90/50 mmHg, heart beat was 120 beat/min Defibrinated blood was obtained by douglas puncture. Emergency laparotomy was performed on the diagnosis of intra-abdominal bleeding. The patient was rapidly infused with 2 bottles of 500 ml of 5% glucose after sending blood for grouping and cross matching. When opening the peritoneum we found the 500 gr weighed death fetus lying free in the peritoneal cavity In about 1500 ml of bloody amniotic/peritoneal fluid with blood clots loosely adhering to the omentum.

Examination of the genital organs showed a rupture of right rudimentary noncommunicating horn of a bicornuate uterus. There was a 8 cm long ragged tear in the lateral wall of the right rudimentary horn which was bleeding. The left horn was continuous with the single cervix and was attached to the right horn by a thin band of connective tissue was found (Figure 1).

A normal fallopian tube and ovary were connected to each horn, and the left ovary contained the corpus luteum of pregnancy. A well developed placenta

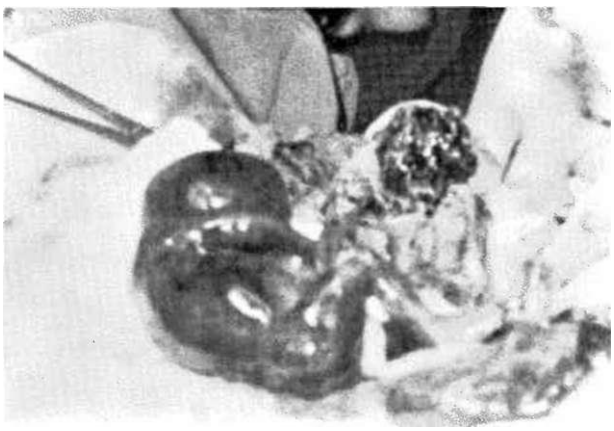

Figure 1. Peroperative view of the ruptured redimentary uterine horn and the fetus lying free in the peritoneal cavity

Şekil 1. Rupture rudimenter uterin hornun ve peritoneal kavitede serbest olarak duran fetusun peroperatif görünümü

was found attached to the ruptured side on the right rudimentary horn with large spiral vessels. No connection to the uterine cavity of the normal left uterus was proved by metal probe. Accordingly, excision of the right rudimentary horn was carried out together with right salpingoophorectomy, then right round ligament was fixed to the left uterus. Palpation of the kidneys revealed no abnormalities.

As soon as fresh blood was available, 5 units of blood was infused. The postoperative recovery was satisfactory and the patient was discharged on the 8th day after suture removal. The patient was asymptomatic at follow up one month later. An intravenous pyelogram done later showed normal kidney and urinary tract.

Microscopic examination of the removed adnexa revealed a normal tube and ovary. The excised horn displayed acute inflammatory reaction with extensive interstisial fibrosis of the myometrium. Careful sectioning of the fibrous band that connected the 2 horns failed to show any communication chanr^I. Right adnexa was in normal histology

DISCUSSION

The first ruptured pregnancy in a rudimentary horn was presented by Mauriceau in 1669. Since then, more than 350 such cases have been reported (2). This is still one of the rarest most morbid conditions. The majority of pregnancies in the rudimentary horn rupture in the first or second trimester and cause massive intraabdominal hemorrhage and potentially threaten the mother's life (3).

A rudimentary horn results from an arrest in the development of one of the mullerian ducts and failure to fuse with the other side. The connecting band of the rudimentary horn is subject to many variables; it may be muscular of fibrous and pedunculated. The

communication of this horn to the main uterine cavity is absent in the majority of cases. Jong-Chou (5) reported noncommunication between uterus and the accessory horn in 78% of his cases and pregnancy in the rudimentary horn can then occur only via transperitoneal migration of the sperm or fertilized ovum. Actually, the corpus luteum is in the opposite ovary in 10% of the cases (3). The pregnancy often survives the first trimester only to terminate by uterine rupture during the fourth or fifth month of gestation. The thickness of the surrounding muscle and vascular supply are usually enouhg to hold the pregnancy during the first trimester. In most cases the gestation usually lasts longer than tubal pregnancy. However, 80-90% of the cases rupture by the mid-second trimester, and approximately 10% will go term with a 2% fetal salvage rate. The rest of the cases often terminates by missed abortion intrauterine fetal death. Live births are rarely recorded (5). In our hospital including this case the incidence has become 3/500.000 (6). In addition we found one case by Bağbozan et al. and 2 cases by Balık et al. in Turkey (6,7). It was also reported, rupture of a rudimentary horn pregnancy with a combined intrauterine pregnancy (8).

Abdominal pain is a typical sign in all reported cases and it has mostly been found in the beginning of the first and second trimester. Recently ultrasound scanning has become general practice and its use to diagnose rudimentary horn pregnancy has been reported (4,9). An extrauterine gestation accompanied by a well defined placenta visible on ultrasound scan is suggested as a criterion for differentiating rudimentary horn pregnancy from abdominal pregnancy.

Once this condition is strongly suspected, the treatment Is laparotomy and excision of the rudimentary horn. It generally does not interfere with future reproduction (4).

In our case the performed intravenous pyelogram was normal. But in all cases an intravenous pyelogram is indicated because of the high incidence of associa ted urinary tract anomalies in the presence of genital tract anomalies (5,9).

REFERENCES

1. Larsen PM, Hahn-Pedersen J, Lange AP, Pregnancy in a non-communicating rudimentary uterine horn with a successful! outcome. Acta Obstet Gynecol Scand 1983; 62:93-4.
2. Johansen K. Pregnancy in a rudimentary horn. Obstet Gynecol 1969; 34:805.
3. O'leary JL, O'leary JA. Rudimentary horn pregnancy. Obstet Gynecol 1963; 22:371.
4. Heinonen PK, Aro P. Rupture of pregnant noncommunicating uterine horn with fetal salvage. Eur J Obstet Gynecol Reprod Biol 1988; 27(3):261-5.
5. Jong-chou chang, Yih-chi Lin. Rupture of rudimentary horn. Acta Obstet Gynecol Scand 1992; 71:235-8.
6. Balık E, Maral i, Bezircioğlu i, Velibeşe S, Bayol Ü. Nonkomminikan rudimenter uterin horn gebeliği. Medial Kadın-Doğum Dergisi 1991; 1:62-3.
7. Bağbozan G, Tulunay G, Berkol Y. Rudimenter uterin horn gebeliği. Medial Kadın-Doğum Dergisi 1991; 4:274-5.
8. Sahaklan V. Rupture of a rudimentary horn pregnancy with a combined Intrauterin pregnancy. J Reprod Med 1992; 37(3):283-4.
9. Muram D, McAllster MS. Asymptomatic rupture of a rudimentary uterine horn. Obstet Gynecol 1981; 69:486.