

An Advanced Rudimentary Horn Pregnancy

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SUMMARY

AN ADVANCED RUDIMENTARY HORN PREGNANCY (A Case Report)

In this case report we presented a 29 th week intact rudimentary horn pregnancy that is not communicating with uterus and discussed under literature review.

Rudimentary horn pregnancy has ever sufficient interest because of its very rarity, mode of fertilization, and its life threatening potency, high mortality rate of both fetus and mother unless diagnosed and managed properly. N.B., 23 years- old muparous woman applied to the prenatal outpatient clinic in July-1995 at the twenty-ninth week of gestation with a history of progressively incerasing low abdominal and pelvic pain for last two months. During ultrasound examination, femur length and the fetal age were found as 42,9 mm and 23 weeks respectively and were no detectable fetal cardiac activity, minimal amniotic fluid. So accordingly, patient was hospitalized with diagnosis of intrauterine fetal death. Misoprostol (Cytotec), 250cc extra-amniotic Rivanol; 2% Oxytocin 500 cc; one more day Misoprostol protocol respectively were applied to the patient and there were no response in regarding of uterine contraction, change in Bishop score of cervix and ultrasound findings. Patient's condition were discussed and were agreed of performing hysterotomy. At laparotomy; left ovary, tube, round ligament were attached to intact rudimentary corn sized as 20 cm x 21 cm x 24 cm which fused with left upper corner of uterus unicollis by a ligamentous like fibrous pedicule. At pathological section, 3. degree macerated male fetus weighting 670 grams and plasenta were totally inside of the intact horn. The rudimentary horn was not communicating with uterus.

Key Words: Rudimentary horn pregnancy.

ÖZET

RUDIMENTER HORN GEBELİK (Olgu Sunumu)

Rudimenter horn gebelik çok nadir gözlenmesi, fertilizasyon metodu, eğer tanı konulamaz ve uygun tedavi edilmez ise fetus ve anne için yüksek mortalite oranlarından dolayı her zaman dikkat çekmiştir. N.B., 23 yaşında, 29 haftalık multipar gebe Temmuz-1995'de son birkaç aydır giderek artan pelvik ağrı yakınması ile başvurmuştur. Ultrasonografide fetal kalp aktivitesinin olmadığı, femur 42,9 mm; 23 hafta, minimal amniyotik sıvı gözlemlendi ve intrauterine "morte de fetus" olarak yatırıldı. Sırasıyla misoprostol, rivanol, oksitosin uygulamaları yapıldı ancak yanıt alınamaması üzerine histerotomi yapılmasına karar verildi. Laparatomide rudimenter horn gebelik olduğu, patolojik seksiyonda ise uterus ile ilişkili kanal gözlenmedi.

Bu olgu sunumunda, uterus ile ilişkisi olmayan, son adet tarihine göre 29 hafta, ultrasonogram ölçümlere göre ise 23. haftalık rudimenter gebelik literatür gözden geçirilerek tartışıldı.

Anahtar Kelimeler: Rudimenter horn gebelik.

Rudimentary horn pregnancy because of its rarity has frequently been considered of sufficient interest to warrant reporting. Mauriceau reported first case of rudimentary horn pregnancy in 1669- As with any rare condition a true incidence is difficult to ascertain. Taylor states that a normal pregnancy occurs in the double uterus once in every 5000 pregnancies (1); Eastman reports an incidence of 1 per 15000 for abdominal pregnancy (2). It is safe to assume that rudimentary horn pregnancies far exceed in rarity these estimates of more common complications. In a detailed review of deliveries at the New

York Hospital, Smith was able to uncover one case of a rudimentary horn pregnancy in 141,946 deliveries. Therefore, one might safely conclude that rudimentary horn pregnancies are 10 times less frequent than abdominal pregnancies (3).

CASE REPORT

N.B., 23-year-old multiparous woman applied to the prenatal outpatient clinic in July-1995 at the twenty-ninth week of gestation with a history of progressively increasing low abdominal and pelvic pain for last two months. There was a four weeks discordance between last menstrual gestational weeks (29 weeks) and fundus-pubic height (25 weeks)

and was no audible fetal heart sound with Doppler. During ultrasound (USG) examination, femur length and the fetal age were found as 42,9 mm and 23 weeks respectively and were no detectable fetal cardiac activity, minimal amniotic fluid. No other remarkable findings were observed with USG. So accordingly, patient was hospitalized with diagnosis of intrauterine fetal death.

Her past history was uneventful. Her Menses began at age 13, and occur every 30 days, lasting 7 days. There was no history of irregularity or dysmenorrhea. Two years ago she gave birth a term female baby weighed 3200 grams spontaneously with the vaginal route.

The earlier months of pregnancy were unremarkable. Her complaint was progressively increasing low abdominal and pelvic pain during last month..

On admission the vital signs were normal; cervix displaced, closed and firm; hemoglobin 10,5 gram/dl; hematocrit 32%; thrombocyte count 257,000; fibrinogen 498 mg/dl; bleeding time 1,15 minutes; clotting time 4,50 minutes; aPTT 31,5 seconds; PT 13 seconds, blood 0 (+) type and no remarkable abnormality in the blood biochemistry.

Misoprostol (Cytotec) 100 micro-gram vaginally and following 12x100 microgram/gun p.o. for one day; 250 cc extra-amniotic Rivanol; 2 % Oxytocin 500 cc; one more day Misoprostol protocol described above respectively were applied to patient and there were no response in regarding of uterine contraction, no change in Bishop score of cervix and USG findings. Patient's condition were discussed and were agreed of performing hysterotomy.

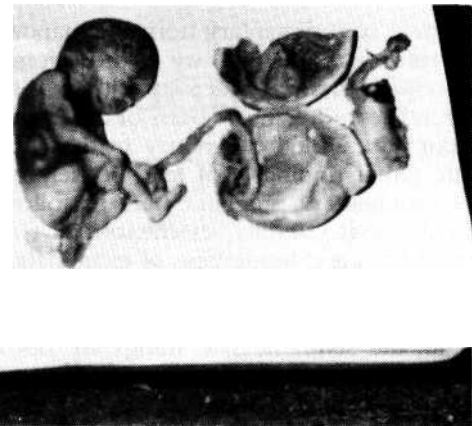
At laparotomy; there was no free blood and fluid in the peritoneal cavity. On the right side uterus unicornis was two times normal size, with the right round ligament, tube and ovary. Left ovary, tube, round ligament were attached to intact rudimentary horn sized as 20 cm x 21 cm x 24 cm which fused with left upper corner of uterus unicornis by a ligamentous like fibrous pedicle. Fibrous pedicle, left round ligament, left tube were clamped and totally extirpated.

At pathological section, in rudimentary horn wall uterine musculature was observed. Third degree macerated male fetus weighting 670 grams and placenta were totally inside of the intact horn. The rudimentary horn was not communicating with uterus (Picture 1).

The patient's postoperative course was uneventful and leaving the hospital in good condition on the postoperative fifth day. From the history, the operative and pathologic findings, it was concluded that we were dealing with an intact 29.th weeks rudimentary horn gestation.

DISCUSSION

In patients with complete or partial atresia of one of the paramesonephric ducts at the time of embryo-



Picture 1. The rudimentary horn was not communicating with uterus.

genesis, the rudimentary part lies as an appendage to the well-developed side. The incidence of unicornuate uteri in a series of 1160 uterine anomalies was 14 percent (4). This was likely an underestimate, because the major diagnostic technique used was hysterosalpingography, which can not identify noncommunicating rudimentary horns. O'Leary and O'Leary estimated that in 90 percent of unicornuate uteri with rudimentary horns there was no communication between the horns (3). This information has both gynecological and obstetrical significance. Specifically, the increased incidence of infertility, endometriosis, and dysmenorrhea in such cases is certainly more easily understood (5). In unicornuate patients pregnancy outcome is poor, likely due to anatomical defect; increased abortion, preterm delivery, fetal growth retardation, breech presentation, abnormal uterine function in labor, and cesarean section (6).

An interesting feature frequently mentioned in discussions of rudimentary horn pregnancy is the mode of fertilization. In 90 percent of cases noncommunicating rudimentary horn, as in our case, is present. In those cases sperm must migrate through transabdominal route. Corpus luteum is found in contralateral side to the rudimentary horn in five percent.

Duration of the pregnancy is directly related to the thickness of the musculature of the rudimentary horn and its ability to hypertrophy and dilate. Rolan and associates (1996) reported that in 70 pregnancies with implantations in rudimentary horns, uterine rupture usually occurred prior to 20 gestational weeks (7). About 10 percent of cases will go to term or form a lithopedion (3).

Less than five percent of the cases reported have been correctly diagnosed preoperatively (2). In our case we diagnosed as an intrauterine fetal death and treated accordingly. We could not observe the endometrial echo or uterus in USG. If endometrial echo can be identified by USG or unusual USG findings, unresponsiveness to various medical therapeutic options and patient's feeling of things not quite right, displacement of cervix and unusual painful extraamniotic rivanol application, all of these must raise a

suspect of rudimentary horn pregnancy. To verify or to rule out, one may try hydrosalpingography or may check up endometrial cavity with hysteroscopy to differentiate rudimentary horn or abdominal pregnancy from intrauterine pregnancy in the case of fetal death. Other findings that may be helpful in diagnosis of rudimentary pregnancy are as follows: history of dyspareunia, sterility, dysmenorrhea (Jarcho); absence of pain and tenderness of examination, in contrast to tubal pregnancy (Abuladase); history of pregnancy and a freely movable tumor (Abramson); in a multipara, the statement that "things are not quite right; I feel different this time" (Eastman); contractions in the sac of the tumor (Greenhill).

In the presence of an unruptured horn, patient must be hospitalized and under the close observation, extirpation should be performed when fetal viability is attained (3). When an abdominal pregnancy develops, prompt operative interference is indicated.

CONCLUSION

In the case of unusual findings of vaginal examination, USG and unresponsiveness to various therapeutic

options we must suspect rudimentary horn pregnancy. When we can not get any response with a therapeutic option during pregnancy termination, before we try another one, we should review the case again. In the first trimester USG, we should view the uterus, the adnexial regions as well as the gestational sac.

KAYNAKLAR

1. Taylor H.C. Pregnancy and the double uterus. *Am J Obst & Gynec.* 46;88:1943.
2. Eastman N. *Obstetrics* (ed. 11). Appleton. New York. 1956
3. O'Leary JL, O'Leary JA: Rudimentary horn pregnancy. *Obstet Gynecol.* 22;37:1943.
4. Zanetti E, Ferrari LR, Rossi G. Classification and radiographic features of uterine malformation: Hysterosalpingographic study. *Br J Radiol.* 51;161:1978.
5. Heinonen PK. Clinical implications of the unicornuate uterus with rudimentary horn. *Int J Gynaecol Obstet.* 21;145:1983.
6. Fedele L, Zamberletti D, Vercellini P, Dorta M, Candiani GB. Reproductive performance of women with unicornuate uterus. *Fertil Steril.* 47;416:1987.
7. Rolan AC, Choquette AJ, Semmens JP: Rudimentary uterine horn: Obstetric and gynecologic implication. *Obstet Gynecol.* 27;806:1966.