Laparoskopska resekcija roga maternice pri intersticijski nosečnosti - klinični primer

Laparoscopic cornual resection for interstitial pregnancy - a case report

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Izvleček

Namen: *Do ektopične nosečnosti pride, kadar se oplojena jajčna celica ugnezdi izven maternične sluznice. Raziskave kažejo na porast incidence ektopične nosečnosti, ki je ocenjena med 1,5 in 2,5 odstotka (1). Najpogosteje se v primeru ektopične nosečnosti zarodek ugnezdi v jajcevod. Izjemno redki so primeri, ko se oplojena jajčna celica ugnezdi na mestu, kjer se jajcevod in maternica združita; temu rečemo intersticijska nosečnost. Pri tej obliki ektopične nosečnosti pride pogosteje do razpoka in krvavitve, ki lahko pripeljeta do hudih posledic z umrljivostjo v 2 odstotkih (2, 3).*

Poročilo o primeru: *V prispevku poročamo o 33-letni bolnici, ki smo jo zdravili zaradi intersticijske nosečnosti v desnem rogu maternice. Opravili smo uspešno laparoskopsko operacijo s harmoničnim skalpelom s predhodno koagulacijo maternične arterije brez zapletov. Bolnica je kasneje donosila*

Abstract

Purpose: *Ectopic pregnancy is defined as the implantation of a fertilized egg outside of the uterine endometrium. Previous research has reported an increase in the incidence of ectopic pregnancy and estimated that this condition occurs in 1.5 to 2.5% of pregnancies (1). In cases of ectopic pregnancy, the fertilized egg most often implants in the fallopian tubes. In some cases, it can also implant at the site where the fallopian tube and the uterus join; this is a condition referred to as interstitial pregnancy (2). Rupture of interstitial pregnancy can have catastrophic consequences with a mortality rate of up to 2% (2, 3).*

Case report: *Here, we report the case of a 33-years-old patient with an interstitial pregnancy in the right uterine horn. We successfully performed laparoscopic surgery with a harmonic scalpel and preliminary coagulation of the uterine artery without any complications. Following surgery, the pregnancy*

zdravega otroka.

Zaključek: *Zdravljenje intersticijske nosečnosti je v preteklosti običajno potekalo z odprtim operativnim pristopom (laparotomijo) z odstranitvijo prizadetega roga maternice. V literaturi je objavljenih več laparoskopskih pristopov zdravljenja (5-8). Menimo, da je laparoskopska tehnika s harmoničnim skalpelom ob predhodni koagulaciji maternične arterije varna in enostavna in bi zato morala biti ustaljena tehnika zdravljenja intersticijske nosečnosti.*

was normal and was carried to term.

Conclusions*: Previously, the treatment of interstitial pregnancy was mostly performed surgically by open surgery including resection of the affected horn of the uterus (4). However, several successful clinical cases of laparoscopic surgery have now been reported (5-8). In our opinion, laparoscopic resection, with a harmonic scalpel and preliminary coagulation of the uterine artery, represents a safe and efficient technique and should be used more regularly in the treatment of interstitial pregnancy.*

INTRODUCTION

Interstitial pregnancy is an extremely rare form of ectopic pregnancy and occurs in 1 to 3% of extrauterine pregnancies (1, 4). An ultrasound examination is crucial in establishing a diagnosis of an interstitial pregnancy. Furthermore, fertility-sparing procedures are generally requested by the patients involved. Due to its scarcity, there is no general consensus for the treatment of interstitial pregnancy. The usual treatment for interstitial pregnancy is open surgery. In such cases, removal of the uterine horn is necessary; if this is not possible, then a hysterectomy is required. The conservative method of treatment involves the intramuscular application of methotrexate or the injection of KCl or hypertonic solution directly into the ectopic gestational sac under the guidance of transvaginal ultrasonography; these techniques, however, have a relatively high failure rate (9). In hemodynamically stable patients, laparoscopy has become the preferred method of treatment for advanced gynecological-laparoscopy specialists. We believe that this form of technique should be used more often in patients with interstitial pregnancies.

CASE REPORT

A 33-year-old woman was diagnosed with an interstitial extrauterine pregnancy at our antenatal clinic at 7 weeks 6 days of gestation, as calculated of her last period. She presented with no abdominal pain or malaise, the only symptom was a brownish vaginal discharge. Her physical condition was stable with normal systolic and diastolic pressure, her oral mucosa was of pink color, and her skin was warm. The results arising from a general physical examination were unremarkable. Her abdomen was soft without tenderness, and bowel sounds were present. Ultrasonography indicated a pregnancy in the right uterine horn. Around the gestational sac a thin myometrial layer was evident and the uterine cavity appeared to be empty.

The patient's medical history revealed no pelvic or other chronic diseases that may have caused tubal dysfunction. Menarche occurred at the age of 13, and she had experienced regular menstrual cycles of 32 days. She had experienced one vaginal birth and one spontaneous abortion.

Blood tests revealed normal blood cell count, hemoglobin and electrolytes with high levels of ß-hCG (20.179 mIU/ml). Despite her stable condition, we decided to perform a laparoscopic surgery on the same day, with the possibility of open surgery. We duly performed a laparoscopic resection of the right uterine horn, laparoscopic sutures of the uterus and laparoscopic resection of the left Fallopian tube. First, the right Fallopian tube was resected for a more accessible view and then the right uterine artery was desiccated using bipolar electrosurgery. Next, we resected the right uterine horn with an ultracision knife and then laparoscopic sutures were inserted to repair the uterine defect. There were no surgical complications

and blood loss was only 150 mL.

Pathohistological examination of the resected Fallopian tube showed mucous membranes and the walls of the Fallopian tube were without signs of gravidity. In contrast, resected material from the uterine horn showed trophoblastic cell groups indicative of ectopic pregnancy.

Post-surgically, the patient recovered well and quickly. She received liquid supplements, along with analgesic, antibiotic and uterotonic therapy. Laboratory tests were within the normal range and showed that levels of ß-hCG were falling. She was subsequently discharged from hospital and allowed to go home on the third day after surgery.

Two years after the surgical treatment of interstitial pregnancy, the patient became pregnant again. All examinations showed a normal pregnancy. Due to the high risk of uterine rupture, she was hospitalized at 36 weeks of pregnancy at the Department of perinatology and at 37 weeks, a planned Cesarean section was performed and a healthy baby girl was delivered.

DISCUSSION

Several possible laparoscopic approaches have been described for the treatment of interstitial pregnancy. In some cases, the affected uterine horn was tied with an endoloop suture in order to prevent bleeding; this is usually followed by resection of the uterine horn (5, 10). Other authors have performed a cornuotomy, an incision of the uterus horn and removal of the pregnancy tissue without removal of the horn (11, 12). Laparoscopic techniques should only be performed by gynecological surgeons who have been trained in laparoscopic techniques. Nevertheless, laparoscopy should only be applied while considering the immediate possibility of converting to open surgery.

In our case, prior to the removal of the uterine horn featuring pregnancy tissue, we performed a desiccation of the uterine artery on the same side, thus preventing further bleeding. The procedure was performed without major bleeding and without any intraoperative or postoperative complications. During the surgery, the operating team was ready to convert to an open operation if necessary. This approach prevented the need for hysterectomy, which gave the patient the possibility of becoming pregnant again in the future.

CONCLUSION

Gynecologists should pay significant attention and due care to select the most appropriate treatment option for the treatment of interstitial pregnancy. In most cases, a surgical approach is required, preferably with a minimally-invasive method.

We conclude that the removal of the uterine horn, with a harmonic scalpel and preliminary coagulation of the uterine artery, is a safe and efficient procedure and should be used regularly in the operative treatment of interstitial pregnancy.

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