Laparoscopic Treatment of Ectopic Pregnancies

—Reports of Two Cases—

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Summary: Two cases with ectopic pregnancy were successfully treated by laparoscopic injection of methotrexate (MTX). Case 1: A 29 year-old housewife was laparoscopically treated with a 15mg MTX injection to the left Fallopian tube. After the laparoscopy, the human chorionic gonadotropin (HCG) was reduced to the normal range. Case 2: A 34 year-old housewife was also laparoscopically treated with a 35mg MTX injection to the right Fallopian tube. After the laparoscopy, the HCG was quickly reduced to the normal range. The endoscopic approach can be used as the surgical treatment of choice for ectopic pregnancies.

Key words: laparoscopy — ectopic pregnancy — methotrexate — case report — human chorionic gonadotropin

Introduction

Many advances of operative endoscopy in gynecology have been recently reported. Endoscopic treatment is as reliable as laparotomy, and the cost is lower due to a shorter hospitalization and recovery period. Two cases with ectopic pregnancies were successfully treated by laparoscopic injection of MTX.

Case 1

A 29 year-old housewife was admitted on 5 December 1991. She complained of a low abdominal pain and 7 weeks of amenorrhea. She had a history of a normal delivery on 19 June 1988. The physical examination revealed only an abdominal tenderness at the left uterine adnexal organ. Transvaginal ultrasonography demonstrated a small amount of ascites in the Douglass cavity, but no abnormal

lesion. HCG was detected in the urine with a Testpack™ (>50 IU/l) and an ectopic pregnancy was suspected. The level of urinary HCG was followed (Fig. 1) and she underwent a curettaged biopsy of the uterine cavity. The report of the biopsy was an Arias-Stella endometrium without chorionic villi. The HCG level was still more than 200 IU/l. She was treated laparoscopically with an injection of 15 mg MTX into the left Fallopian tube. The laparoscopic findings of the right Fallopian tube were normal and swelling of the left Fallopian tube reached 3 cm in diameter. After the laparoscopy, the HCG was reduced to the normal range. She was discharged on 27 December 1991.

Case 2

A 34 year-old housewife was admitted on 24 January 1992. She complained of a low abdominal pain and 6 weeks of

Fig. 1. Urinary HCG levels: Case 1.

Fig. 2. Urinary HCG levels: Case 2.

amenorrhea with abnormal genital bleeding. She had a history of two normal deliveries. The physical examination revealed only abdominal tenderness at the right uterine adnexal organ. Transvaginal ultrasonography showed a small amount of ascites in the Douglass cavity, but no abnormal lesion. HCG was detected in the urine with a Testpack™ ($>50\text{IU/l}$) and an ectopic pregnancy was suspected. The level of urinary HCG was followed (Fig. 2), as she underwent a curettaged biopsy in the uterine cavity. The report of the biopsy was an Arias-Stella endometrium without chorionic villi. The HCG level was still more than 200IU/l . She was laparoscopically treated with an injection of 35mg MTX to the right Fallopian tube on 12 March 1992. The laparoscopic findings were normal for the left Fallopian tube and there was swelling

Fig. 3. Features of the laparoscopy in a tubal pregnancy with bleeding: Case 2.

Fig. 4. Injection of MTX into the Fallopian tube: Case 2.

Fig. 5. Sample specimen from the site of bleeding: Case 2, Degenerated chorionic villi (H & E, $\times 100$).

of the right Fallopian tube with a small amount of blood coagulation in the pelvic cavity (Figs 3 and 4). Degenerated chorionic villi were observed in the coagulated blood (Fig. 5). After the laparoscopy, the HCG dropped to the normal range. She was discharged on 22 March 1992.

Discussion

These two cases are in accordance with the trend which, in 1990, makes laparoscopic treatment the standard surgical treatment for an ectopic pregnancy. The risk of per- and post-operative complications with a laparoscopic approach is no greater than with treatment by laparotomy. Like Dubuinsson et al. (1987), who reported on a series of 100 salpingectomies for ampullary ectopic pregnancies, and others (Reich et al. 1987; Silva et al. 1988), no complications such as immediate post-operative hemorrhage were observed. Although bleeding complications can occur, they are rare for surgeons experienced in operative laparoscopy. Reich et al. (1988) reported only one case with an early post-operative hemorrhage in a series of 109 consecutive laparoscopic treatments of ectopic pregnancies. Likewise Cartwright et al. (1986) and de Cherney et al. (1987) reported, respectively, only one and two women requiring laparotomy for bleeding.

Failure of conservative laparoscopic treatment due to retained trophoblastic tissue was observed in 0 to 16% of the cases in the literature (Bruhat et al. 1980; Vermesh et al. 1980; Cartwright et al. 1986; Pouly et al. 1986). However, the risk of failure should not impede the practice of endoscopic treatment, because failure is also possible after conservative treatment by laparotomy (Kelly et al. 1979; Di Marchi et al. 1987). Di Marchi et al. (1987), from a series of 84 ectopic pregnancies treated conservatively by lap-

arotomy, reported a failure rate that was slightly higher after conservative treatment of ectopic pregnancy by laparoscopy than after laparotomy, but the difference was not significant (Vermesh et al. 1980). Monitoring the decrease in HCG is mandatory after conservative treatment of an ectopic pregnancy. Thus, the indications for laparoscopic treatment of ectopic pregnancy are: 1) unruptured case, 2) no heart beat, 3) maximum diameter of ectopic pregnancy < 3.0 cm, and 4) level of urinary laparoscopy < 8,000 IU/l.

In addition to a shorter recovery period and less esthetic prejudice, the cost of laparoscopic treatment is significantly lower than the cost of laparotomy. For all these reasons, the endoscopic approach should be the surgical treatment of choice for ectopic pregnancy.

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