CASE REPORT

Successful pregnancy outcome following Tompkins metroplasty done early in pregnancy

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A hysterosalpingogram revealed a septate uterus in a 29 year old nulliparous woman with a history of recurrent pregnancy loss. The patient underwent Tompkins metroplasty in the proliferative phase of the menstrual cycle. One month after the operation she presented with a delay in her menses and a positive pregnancy test. Ultrasound revealed a viable fetus commensurate with 10 weeks gestation, making the gestation period 5 weeks at the time of surgery. After reviewing the patient’s menstrual history it was found that the period the patient had before surgery was on time but with unusually minimal bleeding. A repeat ultrasound scan for anomaly done 7 weeks later was commensurate with 17 weeks gestation. The patient carried her pregnancy for the first time until ~37 weeks when she delivered by Caesarean section a healthy female baby weighing 3700 g.

Keywords: septate uterus/Tompkins metroplasty

Introduction

Uterine septum is the most common Müllerian fusion defect. In some women it may be a cause of reproductive complications, mainly repeated mid-trimester abortion (Heinonen et al., 1982; Stein and March, 1990). Removal of the septum improves the reproductive performance of these patients. This can be done through transabdominal metroplasty (McShane et al., 1983; Rock, 1997) or, more recently, through operative hysteroscopy (DeCherney et al., 1986; Daly et al., 1989; Goldenberg et al., 1995). In this report we describe a patient with recurrent pregnancy loss who carried her pregnancy to the third trimester after undergoing Tompkins metroplasty at 5 weeks gestation.

Case report

A 29 year old nulliparous woman presented to our infertility clinic at the American University of Beirut Medical Center, with a history of seven consecutive pregnancy losses. All the abortions were spontaneous and occurred between 8 and 16 weeks of gestation. Moreover, the patient had been unable to conceive during the previous year. A hysterosalpingogram done as part of her investigation work-up revealed a septate uterus (Figure 1). The patient was scheduled to undergo metroplasty in the proliferative phase of the following cycle. The patient presented as arranged and underwent Tompkins metroplasty. The operation was smooth and uneventful. One month after the operation she presented with a delay in her menses and a positive pregnancy test. Ultrasound revealed a viable fetus commensurate with 10 weeks gestation, i.e. she had been ~5 weeks gestation at the time of surgery. Review of the patient’s menstrual history revealed that she had had a regular cycle on 10 March 1996 and her next period was as expected on 7 April but with unusual minimal bleeding for 2 days. The patient underwent surgery on 15 April, i.e. 5 weeks and 1 day from the date of her last confirmed menstrual period. A repeat ultrasound scan for anomaly on 6 July (12 weeks after operation) was commensurate with 17 weeks gestation (Figure 2). The patient had an uneventful pregnancy until 37 weeks (26 November) when she underwent a Caesarean section to deliver a female baby weighing 3700 g.

Discussion

Although congenital uterine anomalies are asymptomatic in many patients (Simon et al., 1991), in others these uterine malformations have been related to infertility, recurrent pregnancy loss and other obstetric complications (Heinonen et al., 1982; Golan et al., 1989). The incidence of Müllerian defects in the normal fertile population is reported to be 8%
but increases to ~25% in women with recurrent miscarriage (Acien, 1997). From a different viewpoint, the incidence of spontaneous abortions and premature birth are clearly increased when a uterine anomaly is present (Rock, 1997). The case presented in this report represents a typical patient with reproductive failure associated with septate uterus which is usually characterized by mid-trimester pregnancy loss. In these patients removal of the septum improves the reproductive outcome. The role of abdominal metroplasty such as Tompkins and Jones procedures is well established (McShane et al., 1983; Muasher et al., 1984). Muasher et al. (1984) reported that following Jones metroplasty 67% of patients with a history of recurrent abortions had living children or pregnancies in the third trimester compared with the pre-operative fetal wastage rate of 94%. Similar results are also obtained after the Tompkins procedure. McShane et al. (1983) reported that 71% of habitual aborters had viable pregnancies after this procedure, while Gray et al. (1984) found that the pregnancy salvage rate rose from 6.2 to 77.8%. Hysteroscopic metroplasty is now the recommended treatment for most septate uteri. Daly et al. (1989) reported 73% term pregnancy rate in patients who underwent hysteroscopic metroplasty, and Goldenberg et al. (1995) showed a reduction in pregnancy wastage from 82% prior to surgery to 44% after hysteroscopic removal of the septum.

To our knowledge, this is the first report in the literature that describes an abdominal metroplasty done while the patient is pregnant. The operation was done supposedly in the proliferative phase following a menstrual cycle. The timing was prescheduled based on the menstrual history of the patient. Because the patient had bleeding on the expected day of the menses, she failed to mention that the amount of blood was less than usual. In addition, because she was unable to conceive during the past 1 year, the possibility of pregnancy was not entertained. The most frequently used abdominal metroplasty operations are the Jones and Tompkins procedures. In the Jones procedure the septum is incised without removal and the myometrium is reapproxi-

References


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