Case Report

Received: August 19, 1994

Accepted: September 15, 1994

Gynecol Obstet Invest 1995;39:215-216

False Diagnosis of Distal Tubal Occlusion in Case of Tubal Diverticula

L.	Ludovico	Muzii
R.	Riccardo	Marana
P.	Paul	Caruana
S.	Salvatore	Mancuso

Department of Obstetrics and Gynecology, Università Cattolica del Sacro Cuore, Rome, Italy

Key Words

Fallopian tube
Infertility
Tubal occlusion
Salpingoscopy

Abstract

A 28-year-old infertile patient with a diagnosis of bilateral distal tubal occlusion made at hysterosalpingography and laparoscopy was found at a second laparoscopy to have bilateral single diverticula in patent tubes. The patient conceived an intrauterine pregnancy 5 months after discharge. This report casts doubt on the suggested association between tubal diverticula and infertility.

Ludovico Muzii, MD, Department of Obstetrics and Gynecology, Università Cattolica del Sacro Cuore, Largo Francesco Vito 1, I-00168 Rome (Italy)

Introduction

Tubal diverticula are small, thin-walled outpouchings present in the isthmic or ampullary portion of the fallopian tube. Few cases of unilateral single tubal diverticulum have been reported in the literature [1-3]. We report here a case of a bilateral tubal diverticulum in a patient referred to us with a false diagnosis of bilateral distal occlusion made at hysterosalpingography (HSG) and laparoscopy.

Mus, ampulla and fimbriae were otherwise normal. There was no other pelvic anomaly. At transcervical injection of methylene blue dye, the outpouchings became distended, revealing a transparent wall, through which the dye was visible; bilateral tubal spillage was evident at further injection of dye.

Salpingoscopy, performed with a 2.8-mm rigid endoscope (Karl Storz GmbH, Tuttlingen, Germany), as described previously [4], revealed a bilateral focal dilatation, with distended and flattened mucosal folds, and no myosalpinx identifiable in the transparent tubal wall (fig. 1) in an otherwise normal ampulla. No operative procedures were performed. The patient was discharged on the first postoperative day, with a simple expectant management planned.

Five months after discharge, the patient conceived an intrauterine pregnancy that was carried to term.

Case Report

The patient was a 28-year-old married woman with primary infertility of 2 years' duration referred to the Department of Obstetrics and Gynecology of the Università Cattolica in Rome. There was no history of pelvic inflammatory disease; basal body temperature charts, postcoital test and semen analysis were normal. Previously she had elsewhere undergone HSG and laparoscopy, both of which suggested bilateral distal tubal occlusion. A laparoscopic bilateral sal-pingoneostomy was planned.

Laparoscopy revealed the presence of a thin-walled outpouching, 3 cm in diameter, in the ampullary segment of both tubes; the isth-

Conclusions

The etiology and clinical significance of single tubal diverticula are unknown. In 2 cases reported in the literature, a history of previous ectopic pregnancy was present: in 1 case [1], the diverticulum was present in the same tube in which a fimbrial ectopic pregnancy had previously been resected by fimbriectomy; in the 2nd case [2], the

Fig. 1. Inside appearance of tubal diverticulum as seen at salpin-goscopy.

diverticulum was diagnosed at HSG performed for secondary infertility after unilateral salpingectomy for ectop-ic pregnancy.

In a report by Yablonski et al. [3], a single tubal diverticulum was diagnosed at diagnostic laparoscopy in 2 out

of 100 infertile patients; no information was given on whether infertility was primary or secondary. No evidence of diverticula was present in a control group of 100 fertile patients evaluated at the time of cesarean section in the same period; however, it is possible that the tubes were not as thoroughly evaluated at cesarean section as they were at diagnostic laparoscopy specifically performed for infertility. The prevalence of diverticula in the fertile group (0%) could therefore be an underestimation.

The reported experience is too limited to draw any conclusion on the functional significance of single tubal diverticula. The suggested associations with ectopic pregnancy [1,2] and infertility [3] remain hypothetical.

In the present case, HSG and laparoscopy performed elsewhere yielded a false diagnosis of bilateral distal tubal occlusion. A larger volume of dye or a higher injection pressure should have been applied to reveal patency at the first laparoscopy; it is possible that the distension of the ampullary diverticula misled the surgeon, who did not mobilize the tube enough to visualize the entire length of the tubes and properly assess tubal patency. The patient conceived an intrauterine pregnancy 5 months after hospital discharge. This is the first report on an intrauterine pregnancy in a case of tubal diverticula, casting doubt on the suggested association between infertility and tubal diverticula. Further studies are therefore needed to assess better the significance of this anomaly in terms of reproductive outcome.

Reference

- Troell S: Diverticula of the walls of the fallopian tubes. *Acta Obstet Gynecol Scand* 1970; 49:17-20.
- Madanes A, Homer M, Turksoy RN, Farber M: A single diverticulum of the fallopian tube. *FertilSteril* 1982;37:121-122.
- Yablonski M, Sarge T, Wild RA: Subtle variations in tubal anatomy in infertile women. *FertilSteril* 1990;54:455-458.
- Marana R, Muzii L, Rizzi M, Lucisano A, Dell'Acqua S, Mancuso S: Salpingoscopy in patients with contralateral ectopic pregnancy. *FertilSteril* 1991;55:838-840.

216

Muzii/Marana/Caruana/Mancuso
Tubal Diverticula