

## Bilateral tubal agenesis: A case report

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**ABSTRACT:** This is a 28-year-old woman nulligeste, followed for hypothyroidism under levothyrox consults for a primary infertility of 1 year. She did an infertility checkup: an ultrasound examination that showed a myomatous uterus and ovaries seat of a dermoid cyst. In hysterosalpingography, she has opacified tubes up to their isthmic portion without peritoneal diffusion. The husband's investigation is normal. She had a diagnostic laparoscopy that showed bilateral tubal agenesis with a negative methylene blue test. The patient is proposed for in vitro fertilization.

**KEYWORDS:** Bilateral tubal agenesis, infertility, laparoscopy.

### 1 INTRODUCTION

The fallopian tube arises from the paramesonephric duct. It has previously been suggested that the fimbriated portion of the fallopian tube has an embryologic origin different from the proximal sections of the tube. We present a total tubal agenesis in a patient presenting infertility.

### 2 CASE

This is a 28-year-old woman nulligeste, followed for hypothyroidism under levothyrox consults for a primary infertility of 1 year. She did an infertility checkup: an ultrasound examination that showed a myomatous uterus and ovaries seat of a dermoid cyst. In hysterosalpingography, she has opacified tubes up to their isthmic portion without peritoneal diffusion. The husband's investigation is normal. She had a diagnostic laparoscopy that showed bilateral tubal agenesis with adjacent 2 ovaries and a normal uterus and negative methylene blue test (figures 1,2).



*Fig. 1. Agenesis of the left fallopian tube*



*Fig. 2. Agenesis of the right fallopian tube*

### 3 DISCUSSION

Bilateral tubal agenesis accounts for infertility in up to 30% of all women [1]. It is acknowledged that magnetic resonance imaging is the optimum imaging modality for characterizing it, having a reported accuracy of up to 100% [2]. This anomaly is, however, detected incidentally during investigation for infertility. They may also be suggested at hysterosalpingography.

Bilateral tubal agenesis is considered in class I of Müllerian duct anomalies (MDAs) : 5–10% of MDAs. The hypoplasia may be vaginal, cervical, fundal, tubal or combined. The ovaries, however, are normal as they are not Müllerian in origin. The true etiologies of bilateral tubal absence remain unclear. According to the cases that have been reported to date, three possible etiologies might be responsible: adnexal torsion, tubal and ovarian maldevelopment secondary to ischemia due to a vascular accident, and a defect in the development of the Müllerian and mesonephric system, either entirely on one side or localized to the region of the genital ridge and the caudal part [3].

### 4 CONCLUSION

Bilateral absence of the fallopian tube with adjacent 2 ovaries and a normal uterus is an extremely rare event. This article reports a case of bilateral tubal agenesis discovered during a diagnostic laparoscopy that was performed for primary infertility. Laparoscopy is a feasible option as a diagnostic tool for these kinds of cases.

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