Accessory Fallopian Tube in an Adolescent: A Rare Anomaly

Kavitha Yogini Duraisamy, Saranya Ravi, Devi Balasubramaniam, Kodeeswari Ramesh

Department of Endogynaecology, GEM Hospital and Research Center, Coimbatore, Tamil Nadu, India

Accessory fallopian tube is a rare congenital/developmental anomaly, which has important clinical implications and is easily overlooked and missed by the surgeons. The incidence of this anomaly as stated in literature varies from 1.9% to almost 6% in infertile women. We report a case of a 14-year-old girl with dermoid cyst on the left ovary and with an accessory fallopian tube on the right side. The patient underwent laparoscopic dermoid cystectomy along with excision of the accessory fallopian tube. In spite of the presentation’s rarity, gynecologists should be aware of such a condition as it has important clinical implications. The presence of an accessory tube predisposes to ectopic pregnancies, torsion, endometriosis, and infertility. Hence, routine careful inspection of the tubes, in any pelvic surgery, is recommended. Whenever encountered, it is advisable to excise these tubes after clear discussion of the implications.

Keywords: Accessory fallopian tube, ectopic pregnancy, endometriosis, fallopian tube anomaly

INTRODUCTION

Accessory fallopian tube is a rare congenital/developmental anomaly, which has important clinical implications and is easily overlooked and missed by the surgeons. The incidence of this anomaly as stated in literature varies from 1.9% to almost 6% in infertile women.

CASE REPORT

We report a 14-year-old girl, who presented with complaints of vague lower abdominal pain on and off for a period of 3 months. She attained menarche at the age of 11 and having regular cycles since then, usually associated with mild-to-moderate dysmenorrhea. An ultrasound revealed a 12 cm × 10 cm left ovarian cyst with suspected solid areas. A magnetic resonance imaging was done which was suggestive of left ovarian dermoid and otherwise normal pelvic anatomy. Serum alfa fetoprotein, serum lactate dehydrogenase, beta human chorionic gonadotropin, and CA125 were in the normal range. She was taken up for laparoscopic ovarian cystectomy. After enucleating the cyst, the ipsilateral tube was examined which was normal except for a small fimbrial cyst around 1 cm in size, which was also excised. The right fallopian tube was looking apparently normal. On careful examination, the right fallopian tube revealed a small tubular structure arising from the ampullary end, around 3 cm in length, which had its own separate fimbria, which was much smaller than the primary tube Figure 1. The accessory tube was excised at its junction with the ampulla after ligating the base. Postoperative period was uneventful. Histopathology confirmed a dermoid cyst on the left and excised accessory tube as fallopian tube with a lumen and a blind end.

DISCUSSION

Accessory fallopian tube, though rare, carries its own significance. It can be encountered in laparoscopic evaluation of infertility, endometriosis, torsion, and ectopic pregnancy. They are usually nonpatent and arise from ampullary end. Based on the distance...
from the fimbria, they are termed terminal (<1 cm) and ampullary (>1 cm). The distance does not make any difference in the presentations usually.[2] The incidence reported in the literature varies. Yablonski et al. described a higher incidence of subtle changes in the tubal anatomy in infertile women, and the incidence of accessory tubes reported was 13% versus 0% in fertile women. They have also reported that, in the observed population, three cases had bilateral accessory tubes and five cases had unilateral accessory tubes.[3] Beyth and Kopolovic have reported an incidence of 6%.[4]

They occur due to bifurcation of cranial end of the paramesonephric duct.[1] Beyth and Kopolovic have postulated that the coelomic epithelium, which invaginates into the müllerian duct to form the ostia, is surrounded by one or many secondary invaginations. If they do not reach till the lumen, they persist as accessory tubes.[3] Sometimes, only accessory ostia might be seen.[4]

Causes of infertility can be due to transport problems of the ovum-blocked ova in a blind tube (leading to wastage of oocyte); ova from the main tube may exit through a communicating accessory tube and vice versa. A higher rate of endometriosis is also noted with this rare anomaly. Infertility can also be due to associated endometriosis.[2] Ectopic can rarely occur if peritoneal migration of sperms fertilizes the blocked ova in the miniature tube and can lead to torsion/rupture. Ectopic due to accessory tube has been described as early as 1888 by Hensok and Herzoy. They have further suggested removal of these structures whenever encountered. Normal tube associated with three accessory tubes has also been described.[3]

Hysterosalpingogram (HSG) might be inconclusive,[5] and the diagnosis can be missed even with other imaging modalities. However, Narayanan and Rajeev have reported detecting duplicated tube in HSG.[6] Visualization of the tubes by laparoscopy or laparotomy is the only confirmatory modality.

Surgical management is with resection of the accessory stump after putting purse string sutures at the base or using energy sources. However, this should be performed after a thorough discussion about the pros and cons of the issue with the parents. Because this excision may itself predispose to adhesions or tubal blockade. Hence, maximum care should be taken while handling the tube. A higher pregnancy rate after stimulation or spontaneously has been reported.[2] Isherwood, 1990, has quoted an incidence of 5% in cases with primary infertility who underwent gamete intrafallopian transfer, and all these patients conceived with treatment.[7] Uçar et al. have reported three fallopian tubes in a case of cesarean section.[8] Rottenstreich et al. reported a 16-year-old teenage girl with isolated torsion of accessory tube, managed by laparoscopic resection of the torsed accessory tube.[9] Sanchez et al. have reported a 10-year-old girl with ovarian teratoma who was diagnosed incidentally on exploration, with two accessory tubes.[10]

**Conclusion**

Accessory fallopian tube is a rare anomaly, which can possibly affect the women’s fertility. A high index of suspicion is needed, and whenever encountered, it should be excised after thorough counseling. Gynecologists should be aware of such a possibility to manage these patients appropriately.

**Patient perspective**

The patient and her parents are extremely thankful for excising the accessory tube, which could have been easily missed.

**Declaration of patient consent**

The authors certify that they have obtained all appropriate patient consent forms. In the form, the parents have given their consent for images and other clinical information to be reported in the journal. The parent’s parents understand that name and initials will not be published and due efforts will be made to conceal identity, but anonymity cannot be guaranteed.

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**Conflicts of interest**

There are no conflicts of interest.

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