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CASE REPORT

Unexplained Unilateral Absence of Fallopian Tube and Ovary: A Rare Occurrence

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ABSTRACT

Objective: To present a case of right-sided unilateral tubal and ovarian absence, along with laparoscopic images.

Patient: A 23-year-old patient presented with primary infertility of 4 years' duration. Right adnexal structures were not visualized on transvaginal ultrasound and laparoscopy.

Intervention: Diagnostic laparoscopy and hysteroscopy.

Main outcome measure: Complete absence of the right fallopian tube together with ovary was detected during laparoscopy. Subsequent urinary tract evaluation with intravenous pyelography was planned.

Result: Ipsilateral absence of the fallopian tube and ovary without any other system anomalies were detected.

Conclusion: Torsion or congenital defect might be the possible etiologic factors. However, vascular accident stands in the forefront of suggested etiologies. Laparoscopy is a feasible option as a diagnostic tool for these kinds of cases.

Keywords: Unilateral absence, Fallopian tube, Ovary, Congenital anomaly.

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INTRODUCTION

The unilateral ovarian and fallopian tube agenesis is an extremely rare event with only few cases described in literature.[1-3] This developmental abnormality is usually asymptomatic and is most commonly diagnosed from laparoscopy for other indications. Although not exactly known, its incidence has been suggested to be 1 in 11,240.[4] This article reports a case of unilateral tubal and ovarian absence discovered during a diagnostic laparoscopy that was performed for primary infertility. Probable etiologies of unilateral adnexal absence are also documented and discussed.

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CASE REPORT

A 23-year-old nulligravida presented to our outpatient department with history of 3 years infertility. On detailed history and examination, she had regular menstrual cycles of 3 to 4 days duration coming every 28 to 30 days. There was no history of dysmenorrhea or dyspareunia, no history suggestive of episodes of pelvic inflammatory disease, endometriosis, acute abdomen, or any previous abdominal or pelvic surgery. On pelvic examination, cervix and vagina were normal, uterus was of normal size and mobile, bilateral fornices were free and nontender. Investigations of infertility confirmed normal regular ovulation. Hormonal analysis of patient was also within normal limits. Two significant findings were on transvaginal sonography, we were not able to visualize right ovary (Fig. 1), and on hysterosalpingography cavity of uterus and left tube were normal but right tube was not visualized. When hysteroscopy was done uterine cavity was normal, and both the tubal ostia were visualized and were normal (Fig. 2). On laparoscopy, uterus was normal, left-sided tube and ovary were normal; on right side, tube and ovary were absent. A small cornual projection or bulging was present. Round ligament, uterosacral ligament, pouch of douglas, and so on were normal. There were no adhesions surrounding it.

Fig. 1: Laparoscopic view showing absence of right ovary and right fallopian tube

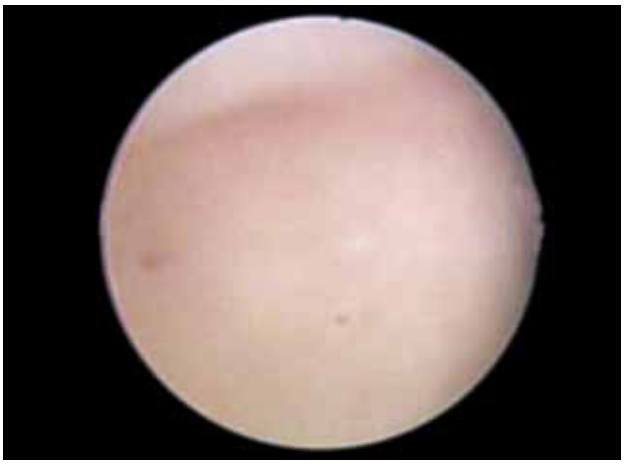

Fig. 2: Hysteroscopic view showing both tubal ostia

Peritoneal surfaces were also evaluated and there were no ectopic tissue or remnant structures. Intravenous pyelogram was planned next to see for renal anomalies and no associated renal anomalies found. On evaluation of male partner, semen analysis was normal and no other abnormality was detected.

DISCUSSION AND CONCLUSION

The true etiologies of unilateral tubal and ovarian absence remain unclear. According to the cases that have been reported to date, three possible hypotheses have been described. One is adnexal torsion, second is tubal and ovarian maldevelopment secondary to ischemia due to a vascular accident, and third is a defect in the development of the mullerian and mesonephric system, either entirely on one side or localized to the region of the genital ridge and the caudal part.[1,4-6] Adnexal torsion is associated with severe abdominal pain during adulthood and can also be seen during pregnancy[7] and childhood.[8] Interestingly, Sivanesaratnam[4] suggested that adnexal torsion might occur during fetal life. In the present case, there was no history of acute abdominal pain; however, the absence of symptoms does not exclude the possibility of a torsion that had occurred during fetal life. Women with mullerian duct anomalies might be more prone to ovarian torsion due to abnormal anatomic connections between the ovary and the pelvic sidewall.[9] Ovarian torsion might lead to organ autoamputation.[5,10] Sebastian et al[10] reported a case in which calcified ovarian tissue was found within free-floating structures in the pelvis during laparoscopy. Uckuyu et al[5] described parasitic ovaries attached to the omentum; this situation likely resulted from ovarian torsion followed by amputation and reimplantation. Etiology can also be embryological, as published by Mylonas et al[1] that vascular accident or failed canalization of the upper part of one fallopian tube might be responsible for the agenesis of ipsilateral fallopian tube and ovary.

Cases with absent fallopian tube and/or ovary that were associated with either urinary or gastrointestinal system anomalies like pyloric stenosis have been reported.[6,11-13] Additionally, uterine malformations with or without round ligament anomalies have also been reported within the scope of these cases.[6,12-14] So, adnexal agenesis cases involving uterine malformations that are associated with other system anomalies might be the result of a defect in the development of the entire mullerian and mesonephric system. However, similar to ours, cases that were not associated with any other system anomalies have been reported.[1,5,15] Indubitably, the above-mentioned etiologies might be responsible for unilateral tubal and ovarian absence. However, the absence of any other system anomalies and absence of torsion related past acute abdominal pain make us think that vascular accident stands in the forefront of suggested etiologies.

REFERENCES

1. Mylonas I, Hansch S, Markmann S, Bolz M, Friese K. Unilateral ovarian agenesis: report of three cases and review of the literature. Arch Gynecol Obstet 2003;268(1):57-60.
2. Paternoster DM, Costantini W, Uglietti A, Vasile C, Bocconi L. Congenital or torsion-induced absence of fallopian tubes. Two case reports. Minerva Ginecol 1998;50(5):191-194.
3. Eustace DL. Congenital absence of fallopian tube and ovary. Eur J Obstet Gynecol Reprod Biol 1992;46(2-3):157-159.
4. Sivanesaratnam V. Unexplained unilateral absence of ovary and fallopian tube. Eur J Obstet Gynecol Reprod Biol 1986;22 (1-2):103-105.
5. Uckuyu A, Ozcimen EE, Sevinc Ciftci FC. Unilateral congenital ovarian and partial tubal absence: report of four cases with review of the literature. Fertil Steril 2009;91(3):936.e5-8.
6. Muppala H, Sengupta S, Martin JE. Unilateral absence of tube and ovary with renal agenesis and associated pyloric stenosis: communication. Eur J Obstet Gynecol Reprod Biol 2008;137(1):123.
7. Yalcin OT, Hassa H, Zeytinoglu S, Isiksoy S. Isolated torsion of fallopian tube during pregnancy: report of two cases. Eur J Obstet Gynecol Reprod Biol 1997;74(2):179-182.
8. Goktolga U, Ceyhan T, Ozturk H, Gungor S, Zeybek N, Keskin U, Ciftpinar T, Baser I. Isolated torsion of fallopian tube in a premenarcheal 12-year-old girl. J Obstet Gynecol Res 2007; 33(2):215-217.
9. Kives SL, Bond SJ, Lara-Torre E. Mullerian agenesis and ovarian torsion. A case report and review of literature. J Pediatr Surg 2005;40(8):1326-1328.
10. Sebastian JA, Baker RL, Cordray D. Asymptomatic infarction and separation of ovary and distal uterine tube. Obstet Gynecol 1973;41(4):531-535.
11. Zaitoon MM, Florentin H. Crossed renal ectopia with unilateral agenesis of fallopian tube and ovary. J Urol 1982;128(1):111.
12. Haydardedeoglu B, Simsek E, Kilicdag EB, Tarim E, Aslan E, Bagis T. A case of unicornuate uterus with ipsilateral ovarian and renal agenesis. Fertil Steril 2006;85(3):750.e1-750.e4.
13. Mulayim B, Demirbasoglu S, Oral O. Unicornuate uterus and unilateral ovarian agenesis associated with pelvic kidney. Surg Endosc 2003;17(1):161.
14. Suh BY, Kalan MJ. Septate uterus with left fallopian tube hypoplasia and ipsilateral ovarian agenesis. J Assist Reprod Genet 2008;25(11-12):567-569.
15. Rapisarda G, Pappalardo EM, Arancio A, La Greca M. Unilateral ovarian and fallopian tube agenesis. Arch Gynecol Obstet 2009;280(5):849-850.