CASE REPORT

Congenital ovarian anomaly manifesting as extra tissue connection between the two ovaries: A case report

Myeong Gyun Choi, Jong Woon Kim, Yoon Ha Kim, A Mi Kim, Tae Young Kim, Hyun Kyung Ryu

Myeong Gyun Choi, Jong Woon Kim, Yoon Ha Kim, A Mi Kim, Tae Young Kim, Hyun Kyung Ryu, Department of Obstetrics and Gynecology, Chonnam National University Medical School, Gwangju 61469, South Korea

Corresponding author: Jong Woon Kim, MD, PhD, Professor, Department of Obstetrics and Gynecology, Chonnam National University Medical School, 160 Baekseo-ro, Dong-Gu, Gwangju 61469, South Korea. jwkimmd@jnu.ac.kr

Abstract

BACKGROUND

Ovarian anomalies except for uni- or bilateral streak gonads are rare. We present a rare case of an ovarian anomaly in which both ovaries were connected by extra tissue.

CASE SUMMARY

A 32-year-old, primipara with a twin pregnancy at 36 weeks of gestation was admitted to the hospital with severe preeclampsia. She underwent emergency cesarean section owing to persistent headache, blurred vision, and generalized edema. Following a peritoneal incision, a thin rectangular-shaped tissue was seen in front of the uterus. After delivery, the extra tissue was removed; no other anomalies were reported in either the ovaries or uterus. Pathology results of the removed tissue disclosed a well-vascularized loose stromal tissue with few follicles and scattered luteinized cells. In this case, to prevent pelvic adhesion or intestinal obstruction resulting from volvulus, strangulation, and torsion, the extra tissue was removed.

CONCLUSION

We report a case of a rare ovarian anomaly where both ovaries were connected by extra tissue. If the extra tissue extends to the abdominal cavity, it should be removed to prevent pelvic adhesion or abdominal complications including intestinal volvulus, strangulation, and torsion.

Key Words: Connected ovaries; Extra tissue; Ovarian anomaly; Case report

©The Author(s) 2022. Published by Baishideng Publishing Group Inc. All rights reserved.
Core Tip: Herein we present the case of a rare ovarian anomaly where both ovaries were connected by extra tissue. If the extra tissue extends to the abdominal cavity, it should be removed to prevent pelvic adhesion or abdominal complications including intestinal volvulus, strangulation, and torsion.

Citation: Choi MG, Kim JW, Kim YH, Kim AM, Kim TY, Ryu HK. Congenital ovarian anomaly manifesting as extra tissue connection between the two ovaries: A case report. World J Clin Cases 2022; 10(26): 9318-9322
URL: https://www.wjgnet.com/2307-8960/full/v10/i26/9318.htm
DOI: https://dx.doi.org/10.12998/wjcc.v10.i26.9318

INTRODUCTION

Several ovarian anomalies have been reported. Among them is ovarian absence; in phenotypic females, the absence of both ovaries is generally linked to chromosome abnormalities and gonadal dysgenesis syndrome. In this case, individuals are likely to have streak gonads or underdeveloped gonads, which are a risk factor for malignancy [1]. Congenital unilateral ovarian agenesis in a normal female is extremely rare and asymptomatic in most cases. Ipsilateral renal or ureteric agenesis and/or ipsilateral malformation of the fallopian tube may be accompanied by congenital unilateral ovarian agenesis. The etiology of unilateral ovarian agenesis has yet to be explained. The two most likely causes of unilateral ovarian agenesis are an asymptomatic torsion of the ovary with consequent organ ischemia and reabsorption or a defect in the development of the Mullerian and gonadal structures underlying vascular anomalies [2]. Another example of ovarian anomalies is ectopic ovaries; whether accessory or supernumerary, ectopic ovaries are also extremely rare, 1 in 29000 to 1 in 70000 gynecologic admissions [3], and may be associated with other congenital genitourinary abnormalities [1]. An accessory ovary contains ovarian tissue and is usually connected to a normal ovary. In contrast, supernumerary ovaries are not attached to the ovary but may be found at various sites in or outside the pelvis. In this report, we present a rare case of an unreported anomaly in which both ovaries were connected by extra tissue.

CASE PRESENTATION

Chief complaints
A 32-year-old female presented with high blood pressure.

History of present illness
The primipara woman with a twin pregnancy at 36 weeks of gestation was admitted to the hospital with high blood pressure and proteinuria. Her blood pressure was 160/100 mmHg, while laboratory test results showed 3+ proteinuria. The pregnancy followed a successful in vitro fertilization-embryo transfer.

History of past illness
The patient had no history of past illness.

Personal and family history
The patient had no specific history of genetic diseases.

Physical examination
She underwent emergency caesarean section owing to persistent headache, blurred vision, and general edema. Following a peritoneal incision, a thin rectangular-shaped tissue was seen in front of the uterus (Figure 1); it formed a connection between the two ovaries (Figure 2). We displaced this tissue, incised the uterus, and delivered the fetuses.

Laboratory examinations
There were no specific findings related to laboratory examinations.

Imaging examinations
There was no specific findings observed on imaging examinations.
Figure 1 Thin rectangular-shaped tissue in front of the uterus (arrow).

Figure 2 The tissue connected to both ovaries at the posterior view of the uterus after a cesarean section.

**FINAL DIAGNOSIS**

Congenital ovarian anomaly manifesting as an extra tissue connection between the two ovaries.

**TREATMENT**

After delivery, we set the margins of both ovaries to avoid injuring the normal ovaries. First, both ends of the extra tissue were ligated and excised. Then the extra tissue was removed; no other abnormal findings were observed in both the ovaries and uterus. We explored the lower abdomen as much as possible to check for extra ovary tissues and any other malformations such as renal anomalies, but there were no specific findings. Pathology results of the removed tissue disclosed a well-vascularized loose stromal tissue with few follicles and scattered luteinized cells (Figure 3).

**OUTCOME AND FOLLOW-UP**

After surgery, the patient recovered and was discharged on the third postoperative day. During an outpatient follow-up after one month, the patient had no abdominal symptoms and ultrasonography revealed no abnormal findings on both adnexa.

**DISCUSSION**

Several studies have reported numerous cases of ovarian anomalies including bilateral and unilateral ovary absence, accessory, and supernumerary ovary. However, there are no reports on cases of connected ovaries, and to the best of our knowledge, this is the first case report. Our patient was...
admitted to the hospital with severe preeclampsia. She did not present other symptoms such as abdominal pain or pelvic pain and the pregnancy followed a successful in vitro fertilization-embryo transfer. She underwent an emergency caesarean section owing to severe headache, blurred vision, and general edema. A tissue connection between both ovaries was discovered by chance. In vitro fertilization is associated with several complications including ovarian hyperstimulation syndrome (characterized by swollen and painful ovaries), which results from the use of injectable fertility drugs, such as human chorionic gonadotropin (HCG)\[4]\]. However, there seems to be no association between connected ovaries and ovulation induction complications. The extra tissue attached to an ovary may be asymptomatic and is not associated with infertility. In most cases, it may be left untreated with observation. However, as in the present case, if both ovaries are connected and a rectangular-shaped tissue lies in the abdominal cavity, this extra tissue can cause pelvic adhesion or intestinal volvulus, strangulation, and torsion resulting in intestinal obstruction\[5]\). Therefore, the extra tissue should be removed.

CONCLUSION

Herein we report the case of a rare ovarian anomaly where both ovaries were connected by extra tissue. In this case, to prevent pelvic adhesion or intestinal obstruction resulting from volvulus, strangulation, and torsion, the extra tissue was removed.

FOOTNOTES

Author contributions: Choi MG wrote the manuscript, and edited all its revisions; Kim AM, Ryu HK and Kim TY retrieved the data, assisted in writing and editing the manuscript; Kim JW and Kim YH participated in designing the study, retrieved the data, assisted in writing the manuscript, and edited all its revisions; all authors have read and approved the final manuscript.

Informed consent statement: Informed written consent was obtained from the patient for publication of this case report.

Conflict-of-interest statement: The authors declare that they have no competing interests to disclose.

CARE Checklist (2016) statement: The authors have read the CARE Checklist (2016), and the manuscript was prepared and revised according to the CARE Checklist (2016).

Open-Access: This article is an open-access article that was selected by an in-house editor and fully peer-reviewed by external reviewers. It is distributed in accordance with the Creative Commons Attribution-NonCommercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited and the use is non-commercial. See: https://creativecommons.org/Licenses/by-nc/4.0/

Country/Territory of origin: South Korea

ORCID number: Jong Woon Kim 0000-0001-7649-4244; Yoon Ha Kim 0000-0002-9881-1455.
REFERENCES

1. Clement PB. Anatomy and histology of the ovary. In: Kurman RJ (ed) Blaustein’s pathology of the female genital tract. Springer. New York 2002; 649-674. Available from: https://link.springer.com/chapter/10.1007/978-1-4757-1942-0_15

2. Dueck A, Poenaru D, Jamieson MA, Kamal IK. Unilateral ovarian agenesis and fallopian tube maldescent. Pediatr Surg Int 2001; 17: 228-229 [PMID: 11315298 DOI: 10.1007/s003830000413]

3. Vendeland LL, Shehadeh L. Incidental finding of an accessory ovary in a 16-year-old at laparoscopy. A case report. J Reprod Med 2000; 45: 435-438 [PMID: 10845180]

4. Mayo Clinic. In vitro fertilization (IVF). Published 2019. Available from: https://www.mayoclinic.org/tests-procedures/in-vitro-fertilization/about/pac-20384716

5. Menzies D, Ellis H. Intestinal obstruction from adhesions--how big is the problem? Ann R Coll Surg Engl 1990; 72: 60-63 [PMID: 2301905]
