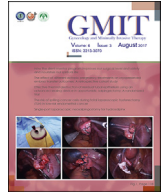




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## Gynecology and Minimally Invasive Therapy

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Letter to the editor

## Successful minimally invasive resection of a huge paratubal cyst in pregnancy

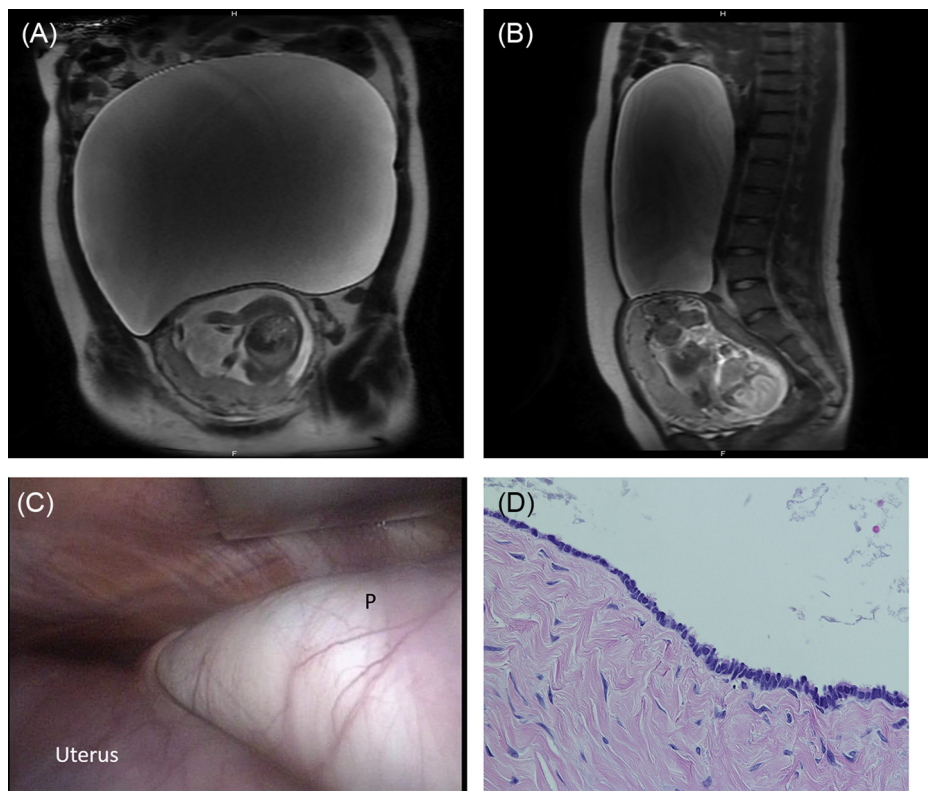
*To the Editor:*

Paratubal cysts are considered to originate from the mesonephric, mesothelial, or paramesonephric remnants.<sup>1</sup> However, huge paratubal cysts are extremely rare, particularly during pregnancy.

A 25-year-old primipara woman was referred to our hospital at 20 weeks of gestation for a huge cystic tumor. Ultrasound sonography revealed a huge simple cyst as a low-echoic lesion. However, the bilateral adnexa were unclear. Abdominal magnetic resonance imaging revealed bilateral ovaries and a simple cystic tumor,

measuring 34 cm in diameter and lacking a solid mass (Figures 1A and 1B).

Laparoscopy without pneumoperitoneum through the abdominal mini-incision site was first used to confirm that the cystic tumor originated from the right adnexa under spinal anesthesia (Figure 1C). The pregnant uterus was gently moved to the left side using two fingers, and cystectomy was performed through the suction of 6000 mL of serous fluid. The patient was discharged without complications. Histologically, the cyst wall consisted of a thick, fibrous connective tissue and was lined by a single layer of ciliated tubal-type epithelium without atypia. Ovarian stroma was



**Figure 1.** Magnetic resonance imaging revealed a huge paratubal cyst at 20 weeks of gestation. (A) Coronal plane. (B) Sagittal plane. (C) Intraoperative findings by gasless laparoscopy on the right side of the gravid uterus. (D) Postoperative histology of the huge paratubal cyst stained with hematoxylin and eosin. ( $\times 400$ ). P = paratubal cyst.

Conflicts of interest: The authors declare no conflicts of interest relevant to this report.

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not identified in any of the sections (Figure 1D). The patient underwent a health checkup for pregnancy at our hospital and delivered an intact baby, weighing 3340g, by vaginal delivery at 40 weeks of gestation.

In pregnant patients, there is one case report of cystectomy for a paraovarian cyst of 20 cm × 15 cm at 20 weeks of gestation.<sup>2</sup> However, to the best of our knowledge, there has been no report of cystectomy for huge paratubal cysts during pregnancy. In this case, gasless laparoscopy was used during the surgery to confirm the origin of the cystic tumor. While performing this procedure in pregnant patients, it is essential that the surgeon avoid touching to the gravid uterus as far as possible. If this case is performed by laparoscopic surgery, single-port laparoscopic surgery should be recommended.<sup>3</sup>

This is the first report of the surgical management of a patient with a huge paratubal cyst during pregnancy. Cystectomy was performed by minilaparotomy during pregnancy without a certain preoperative diagnosis of the origin of the adnexal tumor, which was confirmed at the beginning of the surgical procedure by gasless laparoscopy.

## References

1. Samaha M, Woodruff JD. Paratubal cysts: frequency, histogenesis, and associated clinical features. *Obstet Gynecol.* 1985;65:691–694.
2. Rouzi AA. Operative laparoscopy in pregnancy for a large paraovarian cyst. *Saudi Med J.* 2011;32:735–737.
3. Han CM, Wu KY, Su H, et al. Feasibility of transumbilical single-port laparoscopic hysterectomy using conventional instruments. *Gynecol Minim Invasive Ther.* 2014;3:47–49.

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