

Contents lists available at [ScienceDirect](http://www.sciencedirect.com)

Gynecology and Minimally Invasive Therapy

journal homepage: www.e-gmit.com

Letter to the Editor

Interstitial pregnancy after ipsilateral salpingectomy: Report of a case and discussion of the possible migration route



To the Editor,

Here we report an unusual case of recurrent ectopic pregnancy that developed in the interstitial part of the tube after ipsilateral salpingectomy.

A 40-year-old woman, gravida 2, para. 1, was referred to our hospital with a suspected ectopic pregnancy of 39 days' estimated gestational age after artificial insemination with her husband's sperm. Five months earlier, she had undergone right salpingectomy for treatment of a right-tubal pregnancy. Upon referral, transvaginal ultrasound revealed a 14-mm right-sided uterine mass. Her β -human chorionic gonadotropin level was 6841 mIU/mL.

Diagnostic laparoscopy confirmed a right-interstitial pregnancy. We could not confirm the presence of a corpus luteum in either ovary. A V-shaped uterine resection was performed to remove the mass, and the resulting myometrial defect was repaired with sutures.

Histopathologic examination revealed extensive chorionic villi and decidualization of the uterine serosa (Fig. 1). Trophoblasts and decidual change were confirmed in the uterine serosa, and invasion of trophoblasts into the myometrium was also confirmed. There was no decidual change in the endometrium. We examined serial sections to confirm continuity between the endometrium and the implantation site, but continuity was not seen. These find-

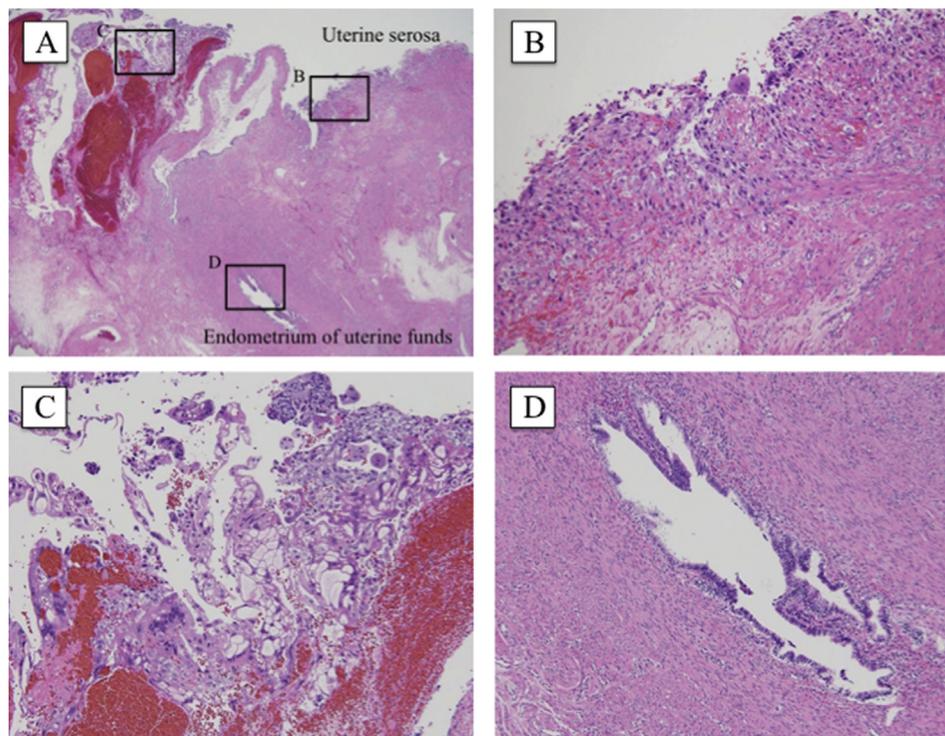


Figure 1. Histopathologic images of the resected tissue. (A) Sites that were examined are shown under low-power magnification. High-power magnification reveals (B) the presence of trophoblasts in the myometrium, (C) chorionic villi and trophoblasts at the implantation site, and (D) no decidual change in the endometrium.

Conflicts of interest: The authors declare that there are no conflicts of interest.

<http://dx.doi.org/10.1016/j.jgmt.2016.03.003>

2213-3070/Copyright © 2016, The Asia-Pacific Association for Gynecologic Endoscopy and Minimally Invasive Therapy. Published by Elsevier Taiwan LLC. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

ings suggest that the fertilized egg migrated not along the uterine lining, but transperitoneally from the serosa.

The mechanism by which an ectopic pregnancy locates within the remnant tube after ipsilateral salpingectomy is not clear. We suggest two possible mechanisms by which the interstitial pregnancy might have occurred after ipsilateral salpingectomy in our patient. The first presupposes that ovulation from the left ovary occurred, an oocyte was normally fertilized in the left tube, and the fertilized egg passed via intrauterine transmigration into the right-tubal stump. The second also presupposes fertilization in the left tube, but that the fertilized egg migrated transperitoneally from the serosa into the interstitial portion of the tube before local embryonic nidation took place. We cannot rule out the possibility of patency or recanalization of the right-tubal stump, but it is logical for us to consider these two theories. There were reports of ectopic pregnancy in the remnant tube after ipsilateral tubectomy or adnexectomy, for which the authors proposed intrauterine transmigration of the fertilized eggs as the responsible mechanism,^{1–3} but no one has suggested transperitoneal migration of a fertilized egg from the serosa into the interstitial portion of the tube. We found, during histopathologic examination, that the fertilized egg in our case had implanted in the smooth muscle of the uterus, and that there was no continuity between the implantation site and the endometrium. Therefore, it appeared that the fertilized egg migrated transperitoneally from the serosa before interstitial implantation.

The histopathologic findings in our case supported the possibility of transperitoneal or transabdominal migration of a fertilized egg from the uterine serosa and subsequent interstitial implantation in cases of ipsilateral salpingectomy. Our case also highlighted the clinical importance of minimizing the remnant tube.

References

1. Takeda A, Manabe S, Mitsui T, Nakamura H. Spontaneous ectopic pregnancy occurring in the isthmic portion of the remnant tube after ipsilateral adnexectomy: report of two cases. *J Obstet Gynaecol Res.* 2006;32:190–194.
2. Sturlese E, Retto G, Palmara V, De Dominicis R, Lo Re C, Santoro G. Ectopic pregnancy in tubal remnant stump after ipsilateral adnexectomy for cystic teratoma. *Arch Gynecol Obstet.* 2009;280:1015–1017.
3. Samiei-Sarir B, Diehm C. Recurrent ectopic pregnancy in the tubal remnant after salpingectomy. *Case Rep Obstet Gynecol.* 2013;2013:753269. <http://dx.doi.org/10.1155/2013/753269>.

Tsuyoshi Ota*, Saya Nagasawa, Yayoi Sugimori, Shozo Matsuoka
*Department of Obstetrics and Gynecology, Juntendo Nerima Hospital,
Nerima-ku, Japan*

Kanako Ogura
*Department of Diagnostic Pathology, Juntendo Nerima Hospital,
Nerima-ku, Japan*

Daiki Ogishima
*Department of Obstetrics and Gynecology, Juntendo Nerima Hospital,
Nerima-ku, Japan*

* Corresponding author. Department of Obstetrics and Gynecology,
Juntendo Nerima Hospital, Takanodai 3-1-10, Nerima-ku, 177-8521,
Japan.

E-mail address: tota@juntendo.ac.jp (T. Ota).

27 November 2015
Available online 7 May 2016