

# Post-salpingectomy endometriosis: An under-recognized entity

Indranil Chakrabarti, Nilanjana Ghosh<sup>1</sup>

Departments of Pathology and <sup>1</sup>Community Medicine, North Bengal Medical College, Sushrutanagar, Darjeeling, West Bengal, India

## ABSTRACT

We report a case of a 48-year old lady, who presented with complaints of lower abdominal pain and menorrhagia for the last four months. The patient had undergone bilateral salpingectomy four years back by the Pomeroy technique. Ultrasonography revealed an ovarian cyst on the right side. A total abdominal hysterectomy with bilateral salpingo-oophorectomy was performed and the specimen was sent for histopathological examination. It revealed that the normal mucosa of the tubectomy stump was completely replaced by endometrial tissue. Tubal endometriosis remains an under-recognized entity, due to less extensive routine sampling of the fallopian tubes, and they may be also be associated with other pathologies, as was in the present case.

**Key words:** Endometriosis, fallopian tube, post-salpingectomy

## INTRODUCTION

Endometriosis is defined as the presence of endometrial tissue outside its normal location and is known to be present in various locations, including the vagina, cervix, ovaries, intestines, scar tissue, and so on. Presence of endometriosis in the fallopian tube may occur in various clinical settings and may be concomitantly associated with other gynecological pathologies.

## CASE REPORT

Here, we report a case of a 48-year-old lady, who presented with complaints of lower abdominal pain and menorrhagia for the last four months. As per the records, the patient had undergone bilateral salpingectomy four years back by the Pomeroy technique. An ultrasonography was done, which revealed a 8 x 6 x 5 cm ovarian cyst on the right side. The other findings were within normal limits. A total abdominal hysterectomy with bilateral salpingo-oophorectomy was performed and the specimen was sent for histopathological examination. Grossly, a right-sided multilocular ovarian cyst measuring 9 x 6 x

6 cm was identified, containing mucinous material. The tubal stumps proximal to the tubectomy, appeared to be grossly thickened [Figure 1]. The uterus, cervix, as well the left ovary were unremarkable. Sections were taken from the uterus, cervix, ovarian cyst, the normal appearing left-sided ovary, and from the thickened part of both the fallopian tubes, about 1 cm proximal to the tubectomy stumps. The ovarian cyst was histopathologically a mucinous cystadenoma and the sections from the thickened part of the tubes revealed that the normal mucosa of the tubectomy stump was completely replaced by endometrial tissue [Figure 2]. However, no endometrial gland or endometrial stroma was present in the myosalpinx or tubal serosa. The sections from the uterus, cervix, and the other ovary were within normal limits.

## DISCUSSION

The term endometriosis has been applied to at least three distinct unrelated lesions of the fallopian tube. In the most common serosal or subserosal type

**Address for Correspondence:** Dr. Indranil Chakrabarti, Department of Pathology, North Bengal Medical College, Sushrutanagar, Darjeeling, West Bengal, India.  
E-mail: drinch@rediffmail.com

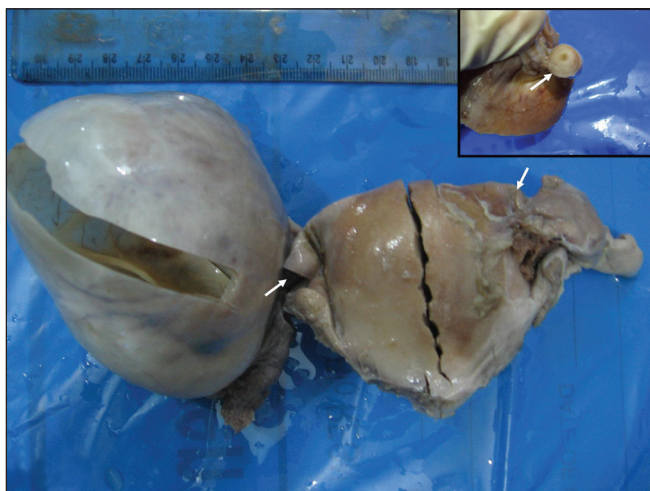
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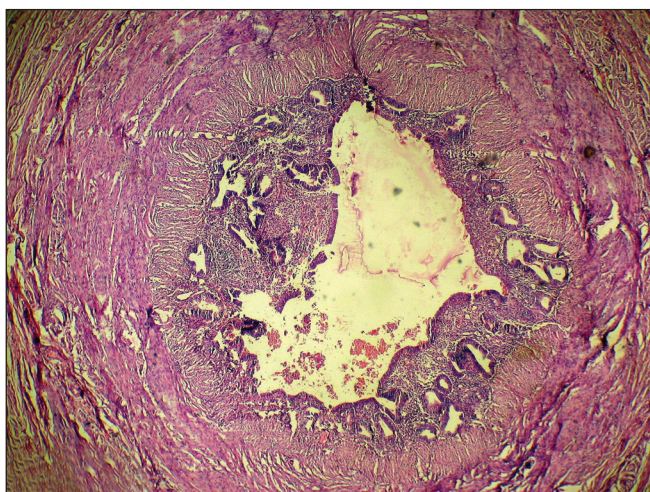


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**Figure 1:** Photograph showing the uterine corpus, right-sided multilocular ovarian cyst and bilateral thickened proximal stump of fallopian tubes (white arrows). The cervix has been separated from the corpus. Inset shows the cut section of the thickened fallopian tube (white arrow)



**Figure 2:** Microphotograph of the fallopian tube showing endometrial tissue replacing the tubal epithelium. The lumen shows mild hemorrhage (Hematoxylin and eosin stain, 100x magnification)

there is usually a presence of other endometriotic foci elsewhere in the pelvis, and in those cases the myosalpinx is rarely involved.<sup>[1]</sup> Secondly, as a part of the normal morphological variation, the endometrial mucosa is seen to replace the mucosa of the interstitial and isthmic portions of the tube in 25 and 10% of the women, respectively.<sup>[1]</sup> The term ‘endometrial

colonization’ or intraluminal endometriosis has been arbitrarily applied when such an ectopic endometrial tissue causes luminal obstruction. Such lesions may result in infertility or even tubal pregnancy and are usually not associated with endometriosis elsewhere. The third type of tubal endometriosis is known as post-salpingectomy endometriosis which is typically known to occur at the tip of the proximal tubectomy stump, one to four years after tubectomy, particularly with the use of electrocautery, short proximal stumps, and with increasing postligation intervals.<sup>[1]</sup> Post-salpingectomy endometriosis is often considered to be related to salpingitis isthmica nodosa. These two conditions may exist together.<sup>[2]</sup> Our case, however, showed only intraluminal bilateral endometriosis, with no involvement of the myosalpinx or serosa. Sampson has hypothesized that following partial salpingectomy, the tubal epithelium sprouts from the cut ends and may undergo metaplasia to give rise to endometriosis.<sup>[2-4]</sup> However, this theory has been challenged by Stock,<sup>[5]</sup> who has concluded that endometriosis of the proximal stump is a result of repeated menstrual reflux, rather than metaplasia of the seeded or invading tubal mucosa.

Whatever be the pathogenesis, tubal endometriosis remains an under-recognized entity due to less extensive routine sampling of the fallopian tubes, and they may be associated with other pathologies, as in the present case.

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