

Incidental primary peritoneal serous borderline tumor mimicking endometriosis during laparoscopy for chronic pelvic pain

Linda Tebache^{1*}, Géraldine Brichant¹, Claire Paquet¹, Frédéric Goffin¹, Katty Delbecque² and Michelle Nisolle¹

¹Department of Obstetrics and Gynaecology, University of Liège, Belgium

²Pathology Department, University of Liège, Belgium

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Background

Typically, multifactorial, chronic pelvic pain (CPP) is a common complaint in woman of childbearing age. In such case, laparoscopy as a diagnostic tool, allows also to treat certain pathologies related to CPP, like endometriosis (presence of uterine endometrial tissue outside of the normal location) [1]. Complete surgical excision of endometriosis has been proved as an effective treatment to relieve pain and improve quality of life [2]. Even if in most cases, endometriotic lesions appeared like purple or blue nodules during laparoscopy, they may have atypical aspects in 15–30% of patients (peritoneum opacification or circular defects, glandular growths, inflammatory alterations, yellow spots, ovarian adhesions) that could be mistaken for other non-endometriotic lesions, such as endosalpingiosis or primary peritoneal serous borderline tumor (PPSBT) [3,4].

Endosalpingiosis differs histologically from endometriosis and refers to the presence of ectopic, cystic glands lined with ciliated epithelium similar to that found in the normal endosalpinx [5].

PPSBT is a rare entity also known as serous micropapillomatosis of low malignant potential and previously designated as ‘atypical endosalpingiosis’. It appears to be a proliferation of epithelial cells arising from secondary müllerian system remnants within or close to the peritoneum. Although PPSBT are usually an incidental finding: multiples granules, nodules or plaques are visible on the peritoneum with the possible existence of adhesions; some lesions have been associated with abdominal or pelvic pain [6]. PPSBT can trigger suspicion for a primary ovarian tumor with peritoneal implants and therefore both ovaries must be checked carefully directly or by imaging before the diagnosis of PPSBT can be confirmed [7,8]. The prognosis for patients with PPSBT is very good, but the low risk of recurrence or of progression to a low-grade peritoneal serous carcinoma, justify a long-term follow-up. Removal of as many of the

peritoneal lesions as possible is the treatment of choice, with a possibility of conservative surgery, for patient who want to conceive. Retrospective series have reported that there were no significant benefits from postoperative adjuvant therapy [6,9,10].

Case Report

A 26-year-old female patient was referred to our CPP center because of failure of any medical treatment for dysmenorrhea. Clinical and imaging examinations including pelvic ultrasounds and magnetic resonance imaging were unremarkable. We decided to perform an exploratory laparoscopy to exclude undiagnosed endometriosis or any other abnormalities linked to CPP. During the surgery a few endometriosis-like implants were discovered on the vesico-uterine peritoneum (Figure 1). Samples were sent for anatomopathological analyses and the other lesions were vaporized by a CO₂ laser. Day hospital was uneventful. Surprisingly, final analyses were consistent with serous borderline non-invasive peritoneal implants (primary peritoneal serous borderline tumor: PPSBT) (Figure 2).

As a result, a second look laparoscopy was planned. Pre-operative thoracic and abdominal CT-scan did not identify any suspicious lesions neither adenopathy. Multiple random peritoneal, ovarian biopsies and omentectomy were performed for new histological lecture. Postoperative recovery was uneventful, and the patient was discharged home the day after. Subsequent analysis revealed no other positive PPSBT implants but identified endometriosis (Figure 3) and endosalpingiosis (Figure 4). No adjuvant treatment was recommended. At review 5 weeks later, she was feeling well and complaining of less dysmenorrhea. The patient is being followed-up with no new events at 19 months.

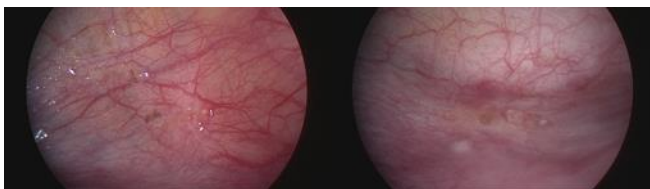


Figure 1. Laparoscopic view of endometriosis-like PPSBT

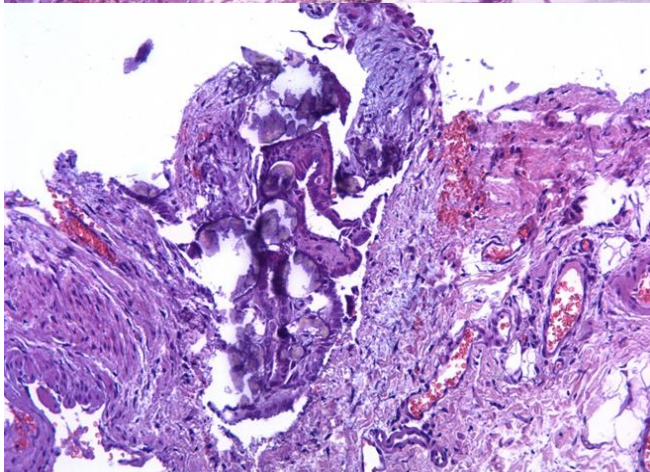
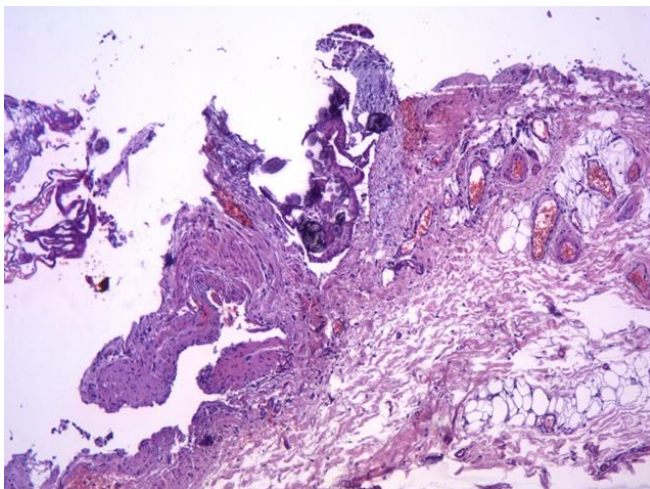


Figure 2. PPSBT: Hematoxylline-eosine staining noninvasive epithelial implant of serous borderline tumor. Papillae with slightly atypical epithelial cell and proeminent psammoma bodies (HE 5x, HE 10x)

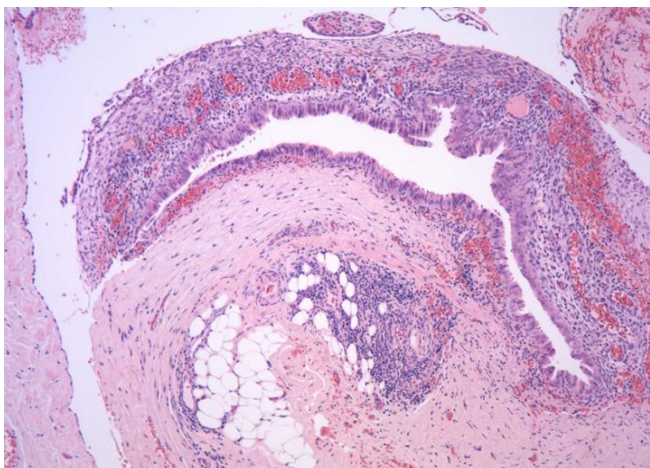


Figure 3. Endometriosis : peritoneal inclusion of ectopic endometriotic like gland and stroma (HE 10x)

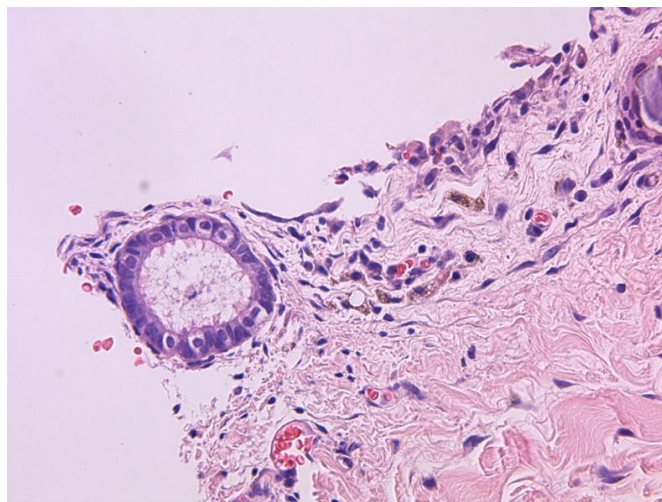


Figure 4. Endosalpingiosis: peritoneal inclusion of tubal type gland lined by a single layer of ciliated cell (HE 40x)

Discussion and Conclusion

We report here the case of a rare association of PPSBT and endometriosis found during surgery for CPP. Although PPSBT is a rare entity, macroscopic aspects cannot distinguish PPSBT from other benign or malignant lesion. The prognosis and the treatment of each histological entity are completely different.

Our case highlights the absolute importance of pathological analyses of the peritoneal lesion and the careful examination of both ovaries, regardless of the preoperative indication or the surgical technique used. During eradication of endometriosis, even if the lesions seem to have a macroscopic benign typical aspect, biopsies are always mandatory, especially if the surgeon use an ablation technique.

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***Correspondence:** Linda Tebache, Department of Obstetrics and Gynaecology, University of Liège, CHR Liège, Boulevard du 12ème De Ligne, 4000 Liège, Belgium, Tel: 0032 4321 6582, E-mail: linda.tebache@chrcitadelle.be

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