



## LETTER TO THE EDITOR

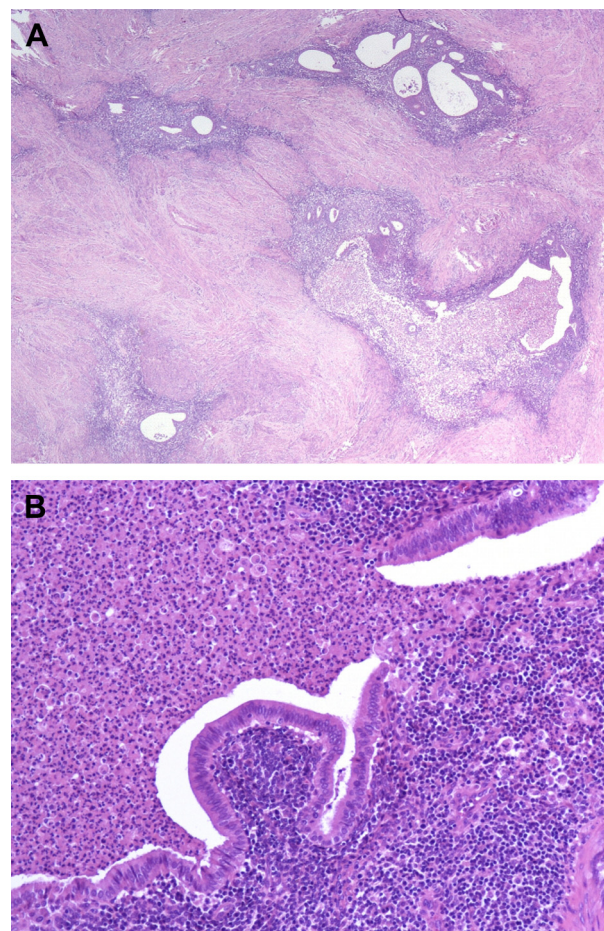
## Microabscess within adenomyosis combined with sepsis

While some reports have described abscess formation in endometriotic foci, there are very few reports of microabscess formation within adenomyosis combined with sepsis in the literature. We report a rare case of microabscess within adenomyosis combined with sepsis.

A 50-year-old, nulliparous woman suffered from persistent vaginal bleeding for about 1 year; however, she did not pay attention to the problem. She had suffered from lower abdominal pain in recent days and a fever was noted. At the time of admission, the leukocyte count was  $35 \times 10^9/L$  with neutrophils 86%, C-reactive protein 211 mg/L, and hemoglobin 63 g/L. Pelvic sonography revealed a large uterus measuring 13 cm  $\times$  10.3 cm  $\times$  9.6 cm, which raised the clinical suspicion of adenomyosis. Pelvic computed tomography was done and necrosis in the uterus was suspected. Cervix motion pain and adnexa tenderness with a bimanual examination were also noted. Her cancer antigen 125 level was elevated to as high as 792 U/mL. The patient was febrile and intravenous antibiotics (piperacillin/tazobactam and metronidazole) were administered for 10 days, however her condition did not improve. Surgical intervention was suggested. A total abdominal hysterectomy was performed and the pathology revealed microabscess formation arising in the foci of adenomyosis (Fig. 1A). The patient improved quickly after surgery and was discharged without any complications.

Adenomyosis is a very common gynecological disease characterized by the presence of ectopic endometrial glands and stroma embedded within the myometrium [1]. It is well known that about 15–20% of multiparous women develop varying degrees of adenomyosis in their early 40s [1–4]. Our patient was different because she was 50 years old and nulliparous.

Rezzan et al. [5] described a 54-year-old postmenopausal woman who had a 53 mm  $\times$  43 mm abscess in adenomyosis, who presented with inguinal pain, night sweats, and hot flashes, and this was the first report on abscess formation in adenomyosis.



**Figure 1.** (A) Microabscess formation in the foci of adenomyosis (hematoxylin and eosin; original magnification  $\times$  20). (B) Ectopic endometrial islands containing polymorphonuclear leukocytes infiltrating the glandular epithelium and stroma.

Pelvic inflammatory disease (PID) refers to acute infection of the upper genital tract structures in women, involving any or all of the uterus, oviducts, and ovaries. Treatment of PID requires broad antimicrobial coverage against the likely pathogens, including *Neisseria gonorrhoeae*, *Chlamydia trachomatis*, and Gram-negative and Gram-positive organisms. Additional anaerobic coverage is important among patients with severe PID and in those with *Gardnerella vaginalis* infection. Meta-analyses of selected trials have demonstrated overall clinical and microbiological cure rates of >90% for most regimens.

In our patient, the microabscess formation looked like multiple separate islands, and it is interesting that the ectopic endometrial islands contained polymorphonuclear leukocytes infiltrating the glandular epithelium and the stroma (Fig. 1B). However, we still do not know how the microabscess formed. We hypothesize that the microabscess lacked response to the antibiotics due to suboptimal concentration of antibiotics because of poor perfusion. Hence the antibiotic therapy was ineffective, and total abdominal hysterectomy was performed. To the best of our knowledge, this case is very rare in representing microabscess formation within adenomyosis combined with sepsis. Surgical intervention seems to be the choice of effective treatment and diagnosis when medical treatment fails.

## References

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