

# Metastatic Neuroendocrine Tumour Mimicking Endometriosis

## INTRODUCTION

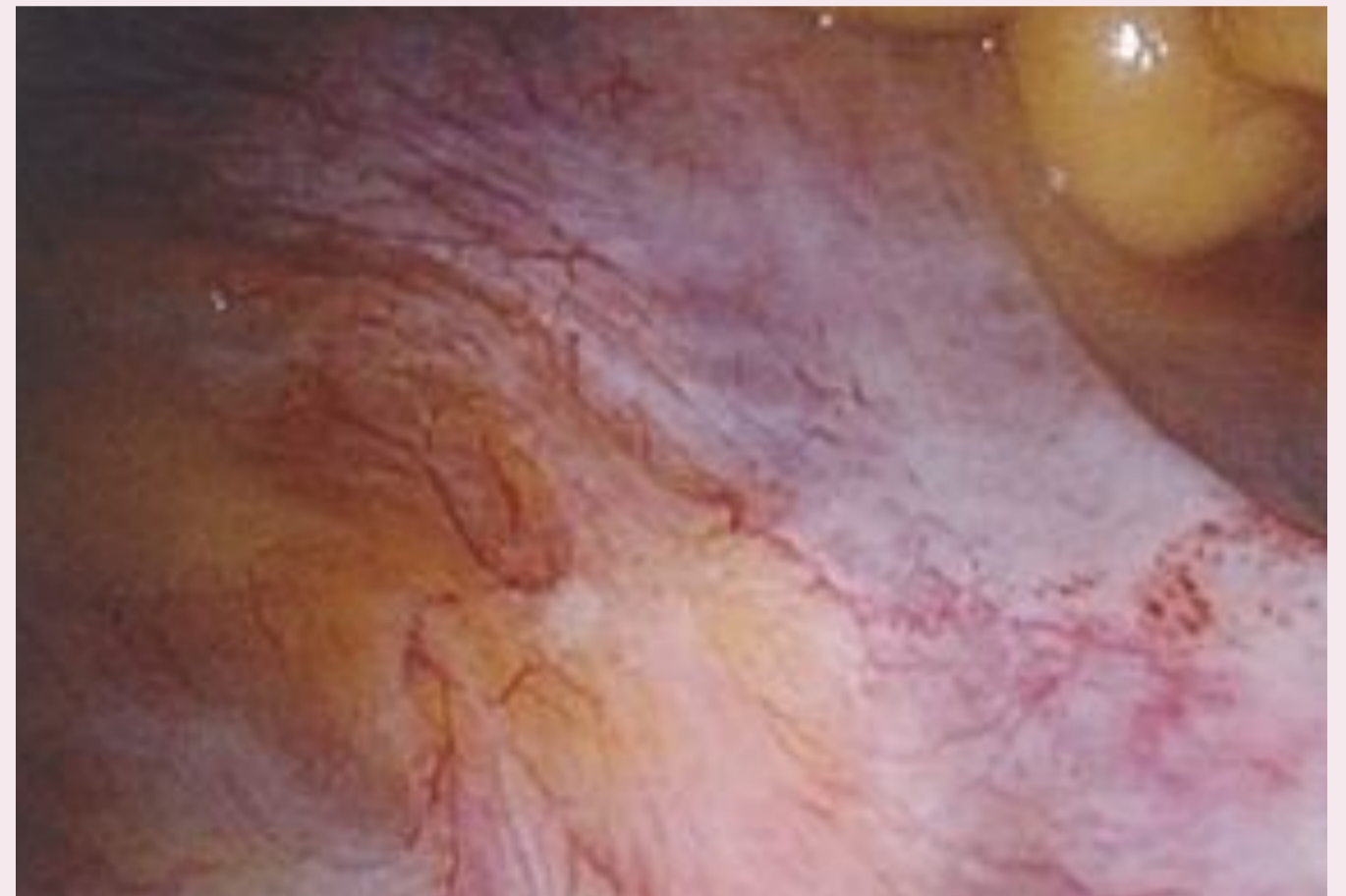
Endometriosis is a debilitating disease affecting 6-10% of women of reproductive age, and may be present in 35-50% of women with pelvic pain and infertility<sup>1</sup>. We describe a rare case of a Metastatic Neuroendocrine Tumour (NET) with peritoneal seeding, discovered incidentally during diagnostic laparoscopy for presumed endometriosis.

## CASE

A 37-year-old G2P1E1 presented with chronic abdominal pain and suspected infertility. The patient complained of cyclical dysmenorrhea, menorrhagia, dyspareunia and continuous chronic lower abdominal cramping pain. Her menstrual cycle was regular and her obstetrics history included an ectopic pregnancy, followed by an uncomplicated pregnancy with vaginal delivery.

The patient underwent laparoscopy for presumed endometriosis, in conjunction with a hysteroscopy D&C, and tubal patency test for suspected infertility. During the laparoscopy, peritoneal lesions appearing consistent with endometriosis were noted in both uterosacral ligaments, the left ovarian fossa, left pararectal ligament and the Pouch of Douglas. Microscopic evaluation of excisions from the right uterosacral ligament and the Pouch of Douglas demonstrated endosalpingosis and atypical gland architecture, testing positive for the neuroendocrine markers chromogranin and synaptophysin. These two samples were consistent with metastatic NET peritoneal seeding. The sample from the Pouch of Douglas also demonstrated endometriosis. Two pararectal excisions were positive for endometriosis and appeared unrelated to the NET.

The patient, who experienced no carcinoid symptoms and was clinically well, was referred to a medical oncologist for ongoing treatment. Further investigations revealed features consistent with a well differentiated Grade 2 NET in the terminal ileum with local lymphadenopathy and peritoneal spread. It is noted that postoperatively, she no longer complained of pelvic pain.



Images from the operation. Both samples testing for positive for the NET. The sample in the bottom image also tested positive for endometriosis.

## DISCUSSION

This is a unique case in which the incidental finding of peritoneal seeding from an advanced metastatic NET, is likely contributing to the patient's pelvic pain, mimicking endometriosis. As such, metastatic NET may be considered as a rare differential for endometriosis. To our knowledge, this is the first case of its kind.

The case empathises the importance of using excision to resect endometriosis instead of ablation, as histopathological analysis of the excised tissue can be performed. In this case, despite macroscopically appearing to be endometriosis, excision resulted in detection and diagnosis of the NET. Furthermore, as ablation destroys the surface of targeted tissue, there is risk that underlying diseased tissue remains in situ, enabling continued symptoms and growth.

## REFERENCES

1. Giudice L, Kao L. Endometriosis. The Lancet [Internet]. 2004 [cited 2018 Nov 20]; 364 (9447): 1789-1799. Available from: DOI: 10.1016/S0140-6736(04)17403-5