

Metastatic Neuroendocrine Tumour Mimicking Endometriosis Highlights the Importance of Excision for Tissue Diagnosis: A Case Report

S Wong¹, V To², A Lam²

¹Prince of Wales Hospital

²Centre for Advanced Reproductive Endosurgery

Introduction:

Endometriosis is a common benign gynaecological condition affecting 6-10% of reproductive age women¹. The gold standard for diagnosis is histological analysis of excised lesions. This case outlines the unexpected diagnosis of metastatic neuroendocrine tumour (NET) in presumed endometriotic tissue.

Clinical History:

- 45-year-old with menorrhagia found to have multifibroid uterus on pelvic USS
- During laparoscopic myomectomy, three peritoneal lesions were excised from the uterosacral ligament, broad ligament and pararectal area with a presumptive diagnosis of endometriosis
- Histopathology diagnosed multifocal metastatic grade 1 NET of probable gastrointestinal origin
- Ga68-Dotatate PET/CT revealed abnormally thickened appendix with increased uptake, suggestive of primary appendiceal NET with nodal spread
- Subsequent operative findings during cytoreductive surgery included primary appendiceal tumour and metastasis in the peritoneum, ileocaecal lymph nodes, right ovary, uterine serosa and surface of spleen

Macroscopic Findings:



Fig 1. Blue powder burn nodule (pararectal)



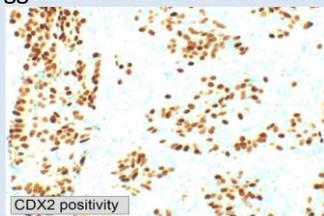
Fig 2. Thickened white lesion (uterosacral)

Microscopic Findings:



Positive Synaptophysin staining

Fig 3. Positive chromogranin, synaptophysin and CD56 staining suggests neuroendocrine tumour



CDX2 positivity

Fig 4. Positive CDX2 staining indicates gastrointestinal origin

Discussion:

There are several reports of severe endometriosis mimicking advanced cancer²⁻⁴. This is the first report to our knowledge, of an advanced NET mimicking endometriosis and amongst few that describe the incidental finding of NET outside the appendix. The metastatic NET deposits had the appearance of endometriosis and were in locations typical of pelvic endometriosis.

This case highlights the importance of thorough examination of the abdominal cavity and appendix during diagnostic laparoscopy. Furthermore, these findings favour excision over ablation in the management of both typical and atypical suspected endometriotic lesions and suggests consideration of NET whilst rare, as a differential for endometriosis.

References:

- Raffi et al. Endometriosis. *Obstetrics, Gynaecology and Reproductive Medicine*. 2011;21(4):112-7
- Goumenou et al. Endometriosis mimicking advanced ovarian cancer. *Fertility and Sterility*. 2006;86(1):219.e23-5.
- Agarwal et al. Unusual Case of Postmenopausal Diffuse Endometriosis Mimicking Metastatic Ovarian Malignancy. *Clinical Nuclear Medicine*. 2016;41(2):e120-2.
- Bidarmaghz et al. Sigmoid endometriosis in a post-menopausal woman leading to acute large bowel obstruction. *International Journal of Surgery Case Reports*. 2016;28:65-7.