PERITONEAL TRAUMATIC NEUROMA - AN UNEXPECTED CULPRIT

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BACKGROUND

Traumatic neuromas (TNs) are non-neoplastic peripheral nerve tumors that occur following axonal damage. Histopathology reveals a combination of axonal material, Schwann cells, and connective tissue. They are most commonly found in the extremities following surgery or traumatic injury. To our knowledge, only a few cases of abdominal and pelvic traumatic neuromas are described in the literature.

CASE PRESENTATION

A 34-year-old female underwent diagnostic laparoscopy and hysterosalpingography in 2013 as part of an infertility workup. Laparoscopy was strongly suggestive of endometriosis and multiple biopsies of affected sacra-uterine ligaments were taken to confirm the diagnosis. Between 2014 and 2016, the patient underwent additional three laparoscopies due to persistent abdominal symptoms located in the right lower quadrant. Endometriosis was found to be the most likely cause of her persistent symptoms and the patient underwent hysterectomy with curative intent in 2016.

In 2018 the patient presented again with acute abdominal pain and appendicitis-like symptoms. Diagnostic laparoscopy showed an unaffected appendix and mesenteric lymphadenitis was given as the most likely diagnosis.

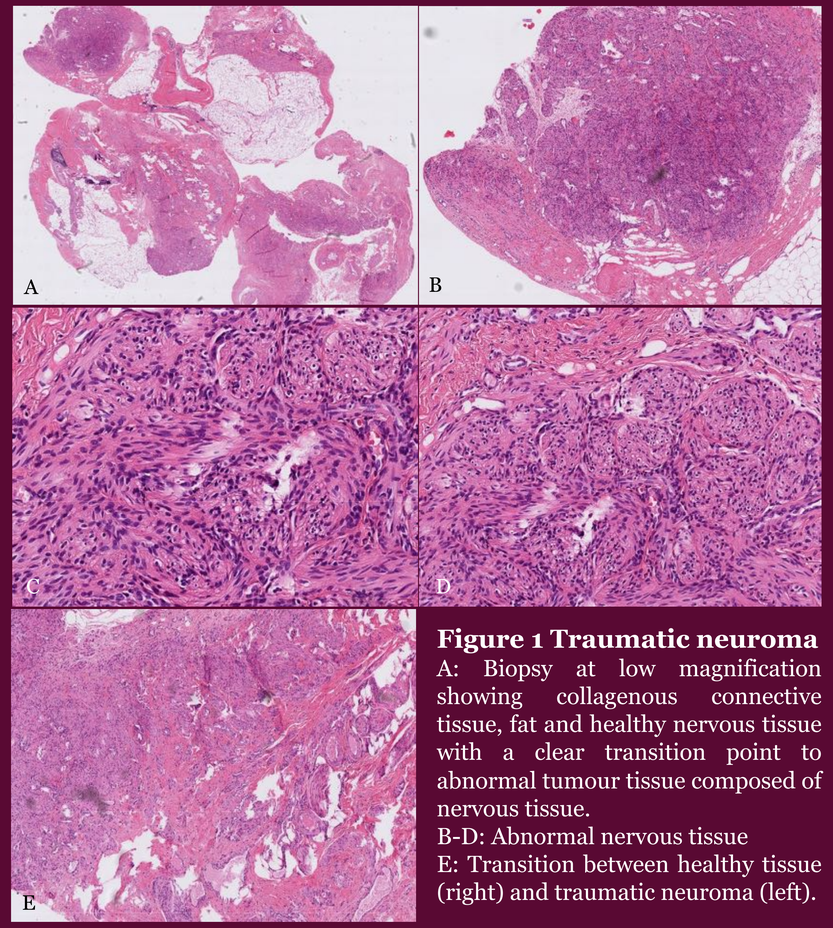


Figure 1 Traumatic neuroma
A: Biopsy at low magnification showing collagenous connective tissue, fat and healthy nervous tissue with a clear transition point to abnormal tumour tissue composed of nervous tissue.
B-D: Abnormal nervous tissue
E: Transition between healthy tissue (right) and traumatic neuroma (left).

In 2019 the patient was readmitted once again with nausea, vomiting, changes in bowel habits, and history of non-specific peri-umbilical abdominal pain radiating to the right iliac fossa. During the procedure, a well-demarcated peritoneal thickening was noted in he right iliac fossa. It was fully excised with a working differential diagnosis of recurrence of endometriosis despite the hysterectomy. The patient also underwent an appendectomy during this operation. Histopathology of the specimens revealed a healthy appendix and the excised peritoneal tissue was identified as a traumatic neuroma. The patient recovered well and her abdominal symptoms resolved. She remains asymptomatic after follow-up at one, 6, and 12 months.

KEY LEANING POINTS

- **Traumatic neuromas** should be considered as a **differential diagnosis** in patients with **persistent abdominal** pain following multiple abdominal surgeries.
- Although **usually asymptomatic**, the resolution of abdominal symptoms following the last surgery suggests TN as the most likely cause of our patient's symptoms.