

Deceptively High CA-125 in Benign Disease

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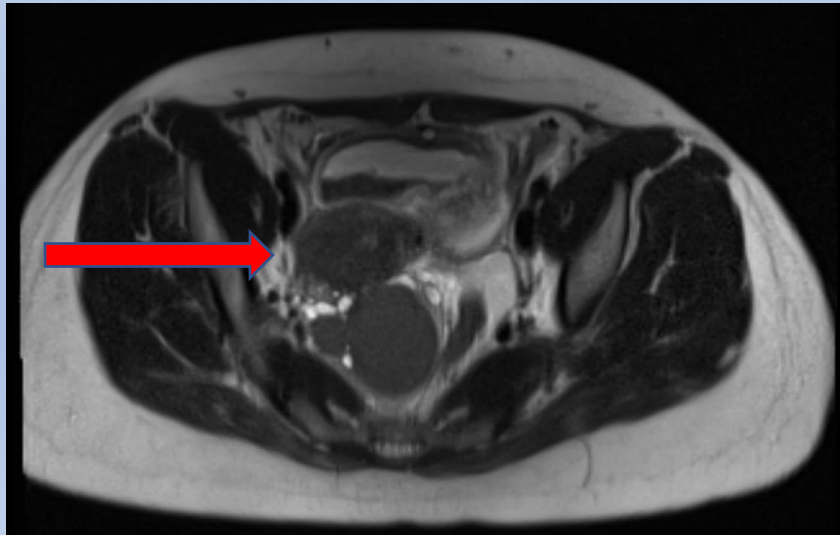
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Background

Cancer Antigen – 125 (Ca-125) is the most widely employed biomarker for diagnosis of epithelial ovarian cancer (EOC)

Clinical cut-offs are subjective with normal values from 20 to 200 units/mL

Other non-malignant gynaecologic diseases (NMGDs) including ovarian cysts, tuboovarian abscesses and endometriosis have also been known to cause less elevated peaks



Case

A 22-year-old female presented with generalised abdominal pain, fevers and amenorrhoea for seven months.

MRI revealed a left ovarian collection measuring 68x26x78mm (Figure 1 and 2). A presumed diagnosis of tubo-ovarian abscess was made and triple antibiotics were commenced. Sexually transmitted infection (STI) screen and blood cultures remained negative throughout admission despite ongoing fevers.

Tumour markers returned excessively elevated: **CA-125 of 3,302 U/mL** (and **CA-19-9 of 1090 U/mL**). CT reported a large cystic collection in the left adnexa measuring 74x47x56mm arising from the left ovary with internal septation, and three smaller collections in the right ovary. A deep endometriosis scan showed an obliterated Pouch of Douglas and fixed ovaries.

Figure 1: collection in anterosuperior pelvis

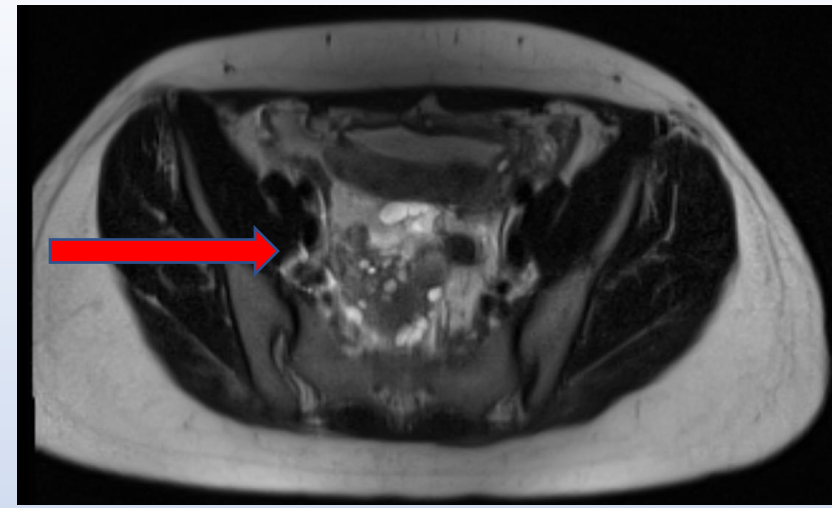


Figure 2: Small cysts in periphery of lesion; left ovary cannot be separately identified

The patient underwent a laparoscopic procedure. Histopathology confirmed stage 4 endometriosis and bilateral endometriomas. Infected endometriomas were the cause of the fevers during admission, which were treated with antibiotics.

Discussion

The role of Ca-125 since its' discovery in 1983 has been an expanding field. Our case represents the highest reported value of Ca-125 in a non-malignant pathology. This should draw attention to its difficult interpretation in both monitoring and investigation of adnexal masses.