

Everything is not always as it seems – Discordance between cross-sectional imaging and pathology. A case report

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Introduction

Cross-sectional imaging of colonic pathology is usually correlated with other investigations such as colonoscopy prior to surgical treatment. In certain clinical situations such as acute inflammation, this is not possible and surgery is undertaken without histopathological confirmation based on cross-sectional imaging.

This report describes an elderly patient who presented acutely with weight loss, abdominal pain and dyspnoea. An unprepared CT scan of the abdomen and pelvis revealed thickening in the caecum and a subsequent right hemicolectomy was performed.

Objectives

- We discuss a case of discordance between cross-sectional imaging and pathology in a patient with suspected colorectal cancer

Methods

- Case report accumulated from retrospectively collected material which included electronic patient records, imaging studies and histopathology reports

Results

Figure 1: Unprepared CT abdomen and pelvis

- Contrast CT abdomen and pelvis (CTAP) demonstrated extensive bowel wall thickening in the caecum
- Appearance contiguous with a primary malignancy

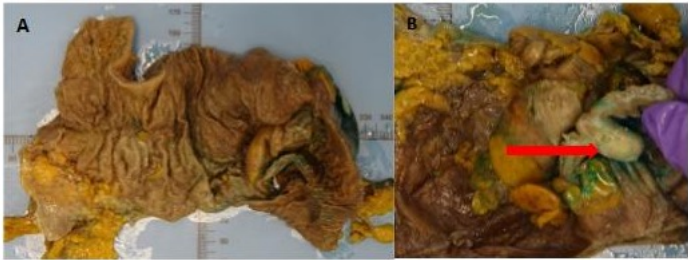
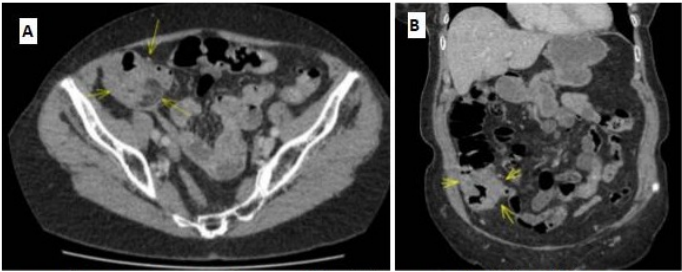


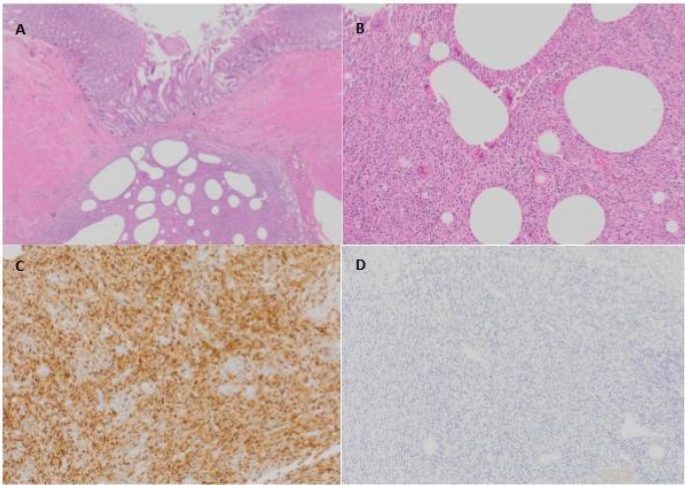
Figure 2: Right hemicolectomy specimen

- No evidence of intraluminal malignancy on gross inspection
- Evidence of a mass lesion where appendix was adherent to caecum

Figure 3: microscopic appearance of caecal appendiceal sections

- A) inflammatory submucosal mass with associated ulceration and inflammation of overlying mucosa
- B) foamy histiocytes and multinucleated giant cells
- C) Histiocyte differentiation
- D) Absence of pancytokeratin staining

Microscopic appearance in keeping with xanthogranulomatous inflammation and no evidence of malignancy



Conclusions

- There is an emerging role for the use of CT imaging, especially CT colonography, in the investigation and diagnosis of CRC
- The difficulty in distinguishing between malignant and non-malignant inflammation on CT further endorses the quintessential place for the use of OC with biopsy as the definitive investigation of CRC
- Xanthogranulomatous inflammation should be considered by clinicians, radiologists and pathologists as a differential diagnosis when CRC is suspected clinically and radiologically, without biopsy confirmation