

## Krukenberg's Tumour Revealed by an Appendicular Syndrome, About a Case

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### Abstract

### Case Report

We present a rare clinical case of Krukenberg's tumour in a patient with no history of neoplasia, whose initial presentation was an appendicular syndrome. The 37-year-old patient was admitted with progressive right iliac fossa pain, abdominal distension, nausea, vomiting and fever. Clinical examination revealed ascites. Biological investigations subsequently showed elevated carcinoembryonic antigen (CEA). Abdominal ultrasound and CT imaging revealed a pelvic mass with peritoneal nodules and abundant ascites. Gastric endoscopy also revealed an antropyloric mass. Anatomopathological examination confirmed the diagnosis of Krukenberg's tumour, and the patient underwent total hysterectomy with right oophorectomy.

**Keywords:** Tumor, malignancy, Krukenberg, appendix, imagerie.

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## INTRODUCTION

Krukenberg's tumour, a rare clinical entity, is a metastatic form of ovarian cancer characterised by the dissemination of malignant cells originating mainly from the stomach. It was first described by Friedrich Ernst Krukenberg in 1896 and remains a diagnostic and therapeutic challenge due to its insidious clinical presentation and often poor prognosis. This particular form of ovarian cancer accounts for around 1-2% of all ovarian cancers, but has a considerable impact on patient morbidity and mortality, the initial presentation was appendicular syndrome.

## CASE HISTORY

A 37-year-old female with no previous medical history was admitted as an emergency patient with progressive right iliac fossa pain, abdominal distension,

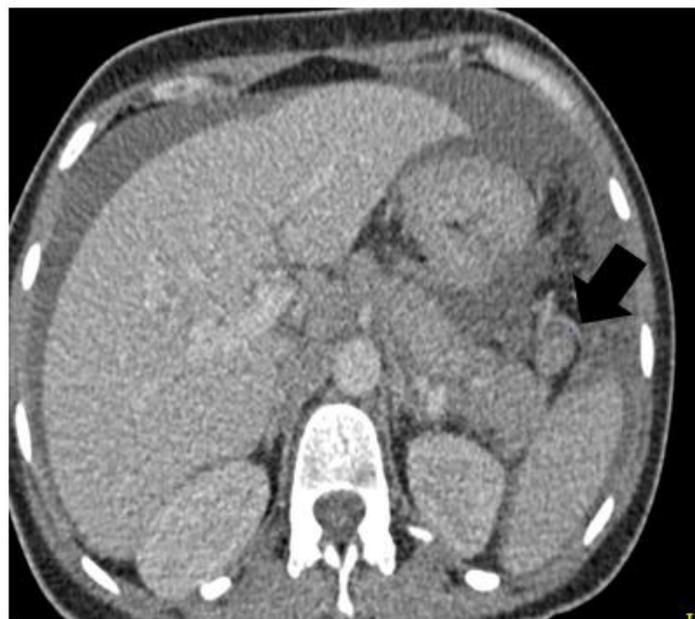
anorexia, nausea, vomiting and fever. On clinical examination, ascites was detected. Initial blood tests showed an increased WBC of 12 G/L and a CRP of 40 mg/L. Abdominal ultrasound imaging showed a right latero-uterine tissue formation, with abundant anechoic ascites, with no direct or indirect evidence of appendiceal inflammation. A CT scan was subsequently performed to further characterise the right latero-uterine mass, which was iso-dense on spontaneous contrast, discreetly enhanced after contrast injection, with peritoneal nodules and abundant ascites (Figures 1-3). The appendix was normal in size. Thickening of the gastric walls prompted oesophagogastroduodenal fibroscopy, which identified a gastric mass at the antropyloric level. The carcinoembryonic antigen (CEA) test was positive, and anatomopathological examination of the two masses confirmed the diagnosis of Krukenberg tumour. The patient underwent total hysterectomy with right oophorectomy.



**Figure 1a et 1b: Abdominal CT axial section and coronal reconstruction: Right latero-uterine mass, enhanced after injection of contrast medium**



**Figure 2: Abdominal CT axial section, thickening of the gastric walls**



**Figure 3: Abdominal CT axial section Peritoneal nodules (white arrow) and very large ascites (black arrow)**

## DISCUSSION

Krukenberg's tumour is a rare but important ovarian metastasis, characterised by the dissemination of malignant cells originating mainly from the stomach. In this case, we observed an unusual presentation of Krukenberg's tumour in the form of an appendicular syndrome, which considerably complicated the initial diagnosis. This atypical presentation highlights the importance of taking into account the diversity of clinical manifestations of this rare disease. Ascites, which is frequently associated with Krukenberg's tumour, was present in our patient. Imaging by abdominal ultrasound and CT scan played a key role in visualising and characterising this pelvic mass, and also in identifying associated lesions such as digestive thickening, peritoneal nodules and ascites. Ascites is often the result of tumour cell dissemination into the peritoneal cavity, leading to irritation of the peritoneal serosa and increased fluid production [2, 3]. The presence of all these signs, combined with the absence of inflammatory signs of appendicitis, led to the elimination of appendicitis as the cause of the pain, thus reinforcing the suspicion of malignancy. The elevation of carcinoembryonic antigen (CEA) was also an important element in the diagnosis of our patient because CEA is a protein that is often elevated in gastrointestinal cancers, including Krukenberg tumours [4]. Its increase can be used as a tumour marker, although its use is limited in terms of specificity [5]. The definitive diagnosis of Krukenberg's tumour was confirmed by pathological examination of the pelvic mass. The histological characteristics of this tumour, such as the presence of mucinous cells and immunohistochemical positivity for certain markers, made it possible to distinguish Krukenberg's tumour from other types of ovarian cancer [6].

## CONCLUSION

This case report highlights the importance of considering Krukenberg's tumour in the differential diagnosis of atypical appendicular syndromes, particularly in patients without a history of neoplasia. The varied clinical presentation of this tumour makes early diagnosis essential for optimal management. Imaging and tumour markers play a crucial role in diagnosis, but definitive confirmation often requires histological analysis.

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