



## Case Report

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# Intestinal Metastasis of Primary Lung Tumour as a Cause of Intestinal Wall Thickening: A Case Report

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## Abstract

We describe the case of a 73-year-old male patient with personal history of pulmonary malignancy, who in a follow up scan, presented multiple areas of nodular wall thickening of small bowel loops. Ultrasound revealed hypoechoic areas of mural thickening with well-defined borders and loss of the layered echostructure of the intestinal wall. The pathology study confirmed the diagnosis of metastasis. Intestinal metastases are a rare entity that should be taken into consideration to avoid under-diagnosis.

## Introduction

Gastrointestinal metastases from primary lung cancer are uncommon, although there is a discrepancy between the incidence and the post-mortem studies incidence [1]. This discrepancy seems to indicate that this condition is often under-diagnosed since most patients are asymptomatic or presenting with nonspecific symptoms [2]. Therefore, radiologic diagnosis on both first and follow up scans may be key to avoid undesired complications and to provide a proper staging.

## Case Presentation

We present a case of a 73-year-old male, controlled due to pulmonary adenocarcinoma. He was treated and achieved a complete response. Whole-body CT scan was performed to follow up purposes, revealing a pulmonary mass and multifocal thickening of small bowel wall (Figure 1). Ultrasound imaging showed thickening of the wall of multiple intestinal loops with loss of layered echostructure (Figure 2). No lymphadenopathy or distant metastases were observed. No other masses were found.

The presence of small bowel metastasis may be difficult to be suspected by the clinician since patients often presents with nonspecific GI symptoms. Abdominal pain or weight loss are also present in patients without small bowel metastasis due to chemotherapy side effects. Small bowel perforation, obstruction, intussusception or acute digestive haemorrhage can be as well the initial manifestation of this condition.

In our case, the presence of the small bowel metastasis was unexpected, as the patient remained asymptomatic.

## Discussion

Small bowel metastasis is an under-diagnosed condition,

which may have clinical implications. It portents a poor prognosis for the patient, with a very low median survival rate [3].

The use of CT both as a diagnostic as well as a follow up tool has been proved useful in depicting bowel metastasis. Any hypodense nodular thickening of the small bowel wall should raise concern, especially with any ancillary criteria such as adjacent fat stranding or lymphadenopathy [3]. Special attention should be paid to the most frequent sites of metastasis, which would be the ileum followed by jejunum [1] (Figure 3).

We advise the assessment of the layered structure of the intestinal wall using ultrasound, as this finding is better assess using this technique, as it is the experience in our work group. PET-CT scan can also be useful.

## Acknowledgement

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## Conflict of Interests

None to declare.

## Role of Funding Source

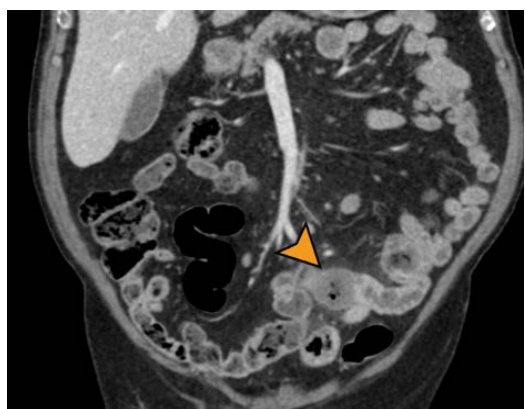
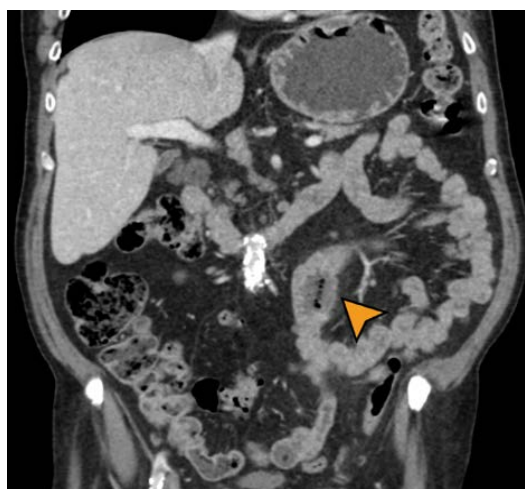
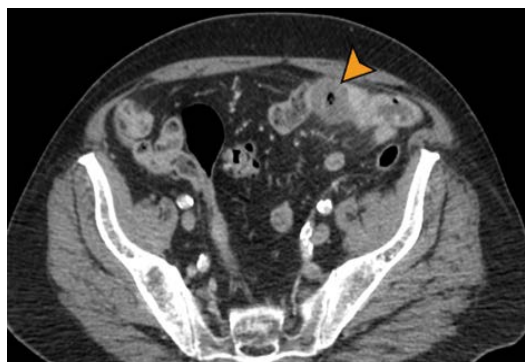
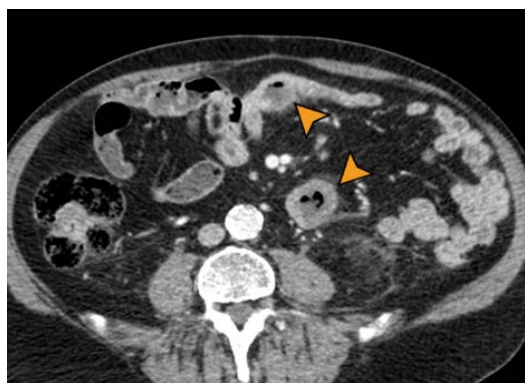
Not applicable.

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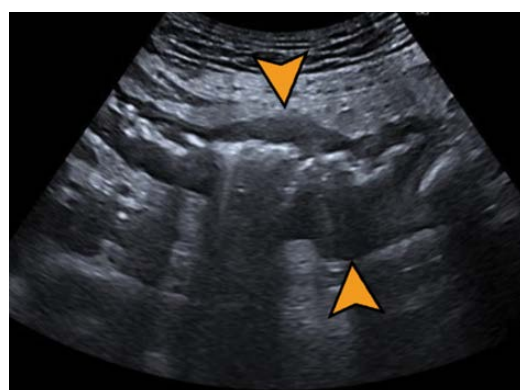
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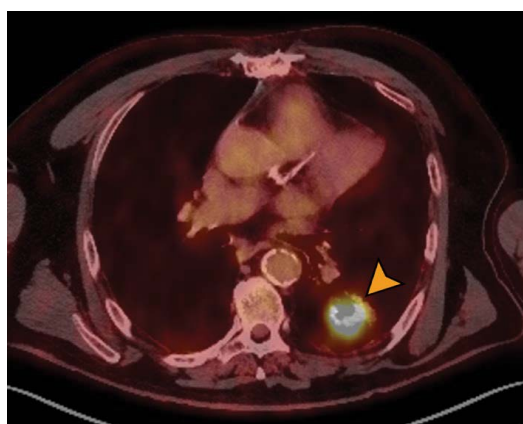
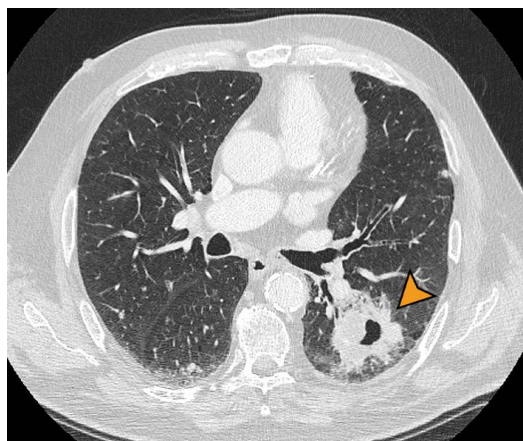
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**Figure 1:** Axial (a,b) and coronal (c,d) enhanced CT scan, showing at least three areas of nodular wall thickening of small bowel loops (arrowheads). Note how these lesions are hypodense, with some gas bubbles inside, with stranding of the adjacent mesenteric fat.



**Figure 2:** Transverse (a) and longitudinal planes (b,c) US scans of two different lesions. Note how they appear as hypoechoic areas of mural thickening with well-defined borders and causing loss of the layered echostructure of the intestinal wall (arrowheads).



**Figure 3:** Thoracic CT (a) and PET-CT (b). A cavitated and hypermetabolic mass is identified in the apical segment of the lower lobe of the left lung. Lung biopsy showed a diagnosis of adenocarcinoma.

## Ethics Committee Approval

Not applicable.

## Authors Declaration

Informed consent was obtained from the patient for the case report.

## References

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