Interpretation of CT imaging: a growing problem in times of obesity?

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DESCRIPTION

A 59-year-old female ex-smoker with morbid obesity and chronic obstructive pulmonary disease presented with persistent breathlessness despite multiple courses of oral antibiotics. Her chest radiography demonstrated left lower zone shadowing. A CT thorax was undertaken and consolidation without an obstructive lesion was revealed. The patient was treated successfully with intravenous broad-spectrum antibiotics.

The CT images were reviewed and an incidental lesion in the anterior extrathoracic adipose tissue was noted (figure 1). The lesion was not palpable on examination. The initial differential diagnosis included a possible neoplasm. A biopsy was considered.

Following discussion with colleagues, an alternative explanation was advanced. While lying supine in the CT scanner, the patient's anterior extrathoracic adipose tissue shifted to a more cephalic position. The position of her head was fixed by the head support resulting in her chin being engulfed in adipose tissue creating the artefact seen.

The incidence of morbid obesity has risen sharply in the UK over the last decade.[1] Some of the difficulties in the interpretation of CT in the context of obesity are already recognised (eg, attenuation artefact and weight limitations).[2] This is the first description of a novel artefactual finding that mimics a discrete lesion in an obese patient. As significant number of CT scans do reveal incidental findings that require further action,[3] this case also illustrates the importance of interpreting images in the context of the clinical presentation and findings, in order to avoid unnecessary further investigation.

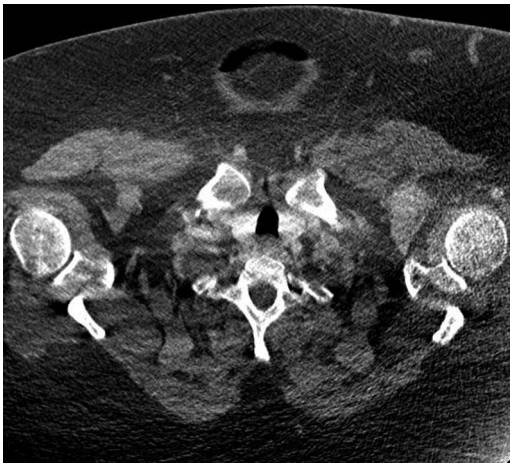

Figure 1 CT thorax showing an artefactual finding (patient's chin) in the anterior extrathoracic adipose tissue of a morbidly obese patient.

Learning points

- The difficulties of interpreting CT scans in morbidly obese patients.
- The importance of correlating images with clinical context and examination findings.

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Competing interests None.

Patient consent Obtained.

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