Letter to the Editor

Reply to letter on: 'Seeing past the appendix: the role of ultrasound in right iliac fossa pain'

Sir,

Many thanks for your comments regarding our article 'Seeing past the appendix: the role of ultrasound in right iliac fossa pain'.

As mentioned, the main emphasis of our paper was not appendicitis itself but rather to highlight the potential alternative diagnoses in a patient with acute right iliac fossa pain and the value of ultrasound in distinguishing between them. This resulted in our limited depth of coverage of the topic of appendicitis itself.

In cases of suspected appendicitis, the parameter of appendix diameter or presence of an appendicolith is not intended to be interpreted in isolation. Indeed, as a clinical radiologist or sonographer, reference to prescriptive measurements in reaching a diagnosis should be used with caution as you have illustrated. In particular, salient findings on ultrasound should be interpreted as a whole in combination with the clinical picture in order to reach a diagnosis.

In the clinical context of acute right iliac fossa pain, the constellation of findings of an aperistaltic, non-compressible, thick-walled, blind-ending tubular structure greater than 6 mm are considered diagnostic sonographic features of acute appendicitis.¹ The additional findings of echogenic fat and the presence of an appendicolith are regarded as strong supportive features. In cases where the appendix is apparently enlarged secondary to distension by faeculent material, the noted absence of these supportive features can help to prevent misdiagnosis of acute appendicitis.²

In our clinical practice, the presence of gas in the lumen of the appendix with the aforementioned features in an

unwell patient with suspected appendicitis should raise the possibility of a gangrenous appendix.

In patients where the entire appendix cannot be visualised, focal acute appendicitis cannot be excluded as a differential. It is in cases such as these that the recognition of the supportive features such as inflamed echogenic fat are particularly important and must be interpreted in combination with the patient's clinical picture. In cases of equivocal ultrasound findings, it may be necessary to proceed to further cross-sectional imaging or to consider exploratory laparoscopy.

In summary, ultrasound should be used with the aim of providing a robust explanation for the patient's acute clinical symptoms, aiding the clinician to formulate a safe and appropriate management plan.

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