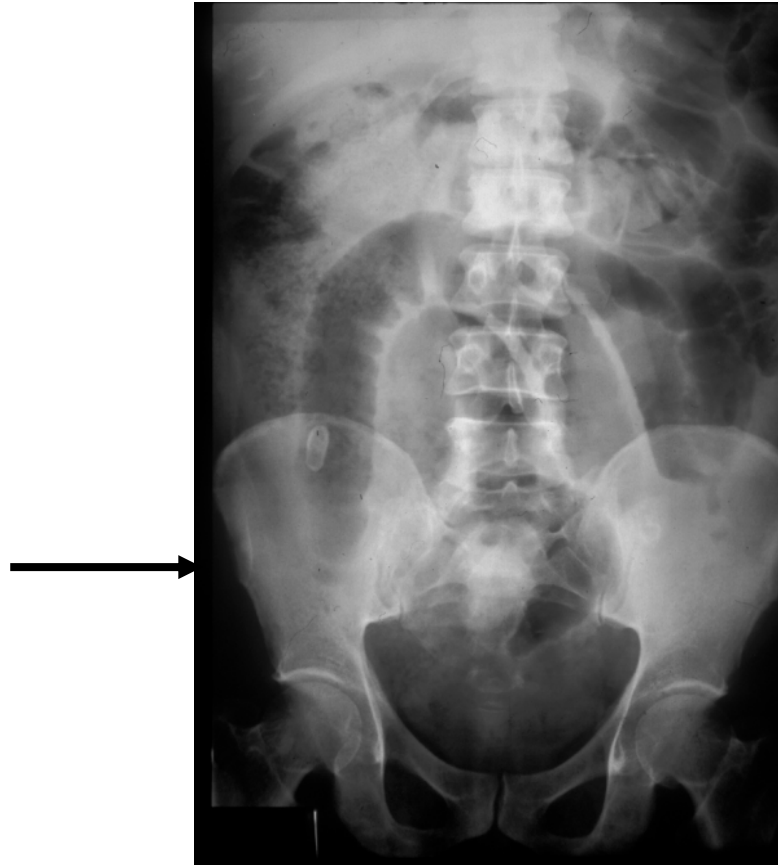


Answers to the Medical Quiz

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- A1.** 1-Ring-like calcified density 8mm X 15mm in the right iliac fossa just below the mid iliac crest on the right (arrow). 2-Dilated small bowel loops.
- A2.** Appendicolith and obstructed small bowel secondary to appendicitis^{1,2}.

DISCUSSION

One of the main differential diagnoses for such a 'ring' of calcification in the abdomen is an extruded gall stone but we do not see air in the biliary tree to suggest this possibility¹. A teratoma calcification is usually seen within a soft tissue mass which may also contain fat. An intra-abdominal/pelvic phlebolith almost never reaches this size and is in the wrong location for that possibility. Calcified mesenteric lymph node(s) is (are) usually amorphous and almost never present as a ring-like calcified shadow². The calcified density has a shape that does not fit with a recognizable foreign body³. Calcified worms present as serpiginous calcifications or a shapeless calcified mass. Meckel's diverticulum can occasionally contain a ring-like calcified shadow, but the diagnosis is made usually on clinical suspicion and GIT barium studies and/or abdominal CT. Vesical stones or stones in a urinary bladder diverticulum should also be entertained, they are usually located within the mid or lower pelvis, and the clinical picture

should suggest the appropriate etiology in the majority of cases. Calcified fibroids and vascular calcifications should not present a diagnostic difficulty.

Calcified appendicolith is not frequent but recognizing one on abdominal radiographs can be difficult; it may overlap the bony structures of the lower spine and pelvis and/or the calcium content may be too low to cast a shadow especially if the film is 'light', and if the size and/or location divert the attention to consider other diagnosis such as a phlebolith or a diverticular (bowel, urinary bladder) stone. Since the presence of an appendicolith is highly indicative of appendicitis; to confirm that the calcified shadow is appendiceal, it may be necessary to proceed to lower abdominal CT (with IV and rectal contrast) particularly in cases where the clinical picture is atypical^{4,5}. Abdomino-pelvic ultrasound, should; however, be attempted before proceeding to CT especially in the young and non-obese patients; this also help in selecting which patient should proceed to CT.

REFERENCES

1. Mohannad Salih Mahmoud. Non-visceral Abdominal Calcification. In Atlas of Differential Diagnosis 1st ed 1996; 288.
2. Armstrong P, Wastie ML. Abdominal Calcifications. In Diagnostic Imaging. Blackwell Science Ltd 3rd ed, 1992; 140-2.
3. Moorjani V, Wong C, Lam A. Ingested Foreign Body Mimicking and Appendicolith in a Child. Br J Radiol 2006; 79: 173-4.
4. Hebert JJ, Taylor AJ, Winter TC. Comparison of Colonic Transit between Polyethylene Glycol and Water as Oral Contrast Vehicles in the CT Evaluation of Acute Appendicitis. AJR Am J Roentgenol 2006; 187(5): 1188-91.
5. Alobaidi M, Shirkhoda A. Value of Bone Window Settings on CT for Revealing Appendicoliths in Patients with Appendicitis. AJR Am J Roentgenol 2003; 180(1): 201-5.