

Overlooking the abdominal X-ray – the peril of ascariasis

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Summary

A young child presented with intermittent bowel obstruction. The abdominal X-ray was not closely examined, and a contrast study was performed that demonstrated multiple tubular filling defects indicative of worms. The patient was treated accordingly. Reviewing the abdominal X-ray demonstrated numerous serpigenous, tubular, soft-tissue densities in gas-filled bowel loops.

A 9-year-old boy presented with intermittent bowel obstruction. The abdominal X-ray (Fig. 1) was initially overlooked and a contrast study (Fig. 2) was performed that demonstrated multiple tubular filling defects in the stomach, duodenum and proximal small bowel consistent with worms. The patient was treated for worms which he subsequently passed and his symptoms improved. Re-evaluation of the abdominal X-ray demonstrated numerous serpigenous, tubular, soft-tissue densities in gas-filled bowel loops in the left mid and lower quadrants.

The abdominal X-ray has a sensitivity of 70% in the detection of worms. Large collections of worms may be visualised on plain film, outlined by intestinal gas, with the interface between the worm bolus and adjacent gas shadows appearing irregular. Isolated

worms may be visualised as linear or bubble-shaped radiolucencies, indicating the presence of gas within the lumen of the worm.¹ Worms may appear as areas of tubular, linear soft-tissue densities in gas-filled bowel loops on abdominal X-ray, as in our patient.² Radiographs can also demonstrate bowel obstruction and free gas under the diaphragm in patients with intestinal perforation.¹

On barium studies, worms appear as filling defects that are cylindrical, elongated and smooth within the contrast-filled intestinal lumen. In fasting patients, worms may ingest the contrast, resulting in outlining of their alimentary canals.³

The specific features of worms should not be overlooked on abdominal X-ray, thereby avoiding the radiation dose, discomfort and cost of contrast studies.

REFERENCES

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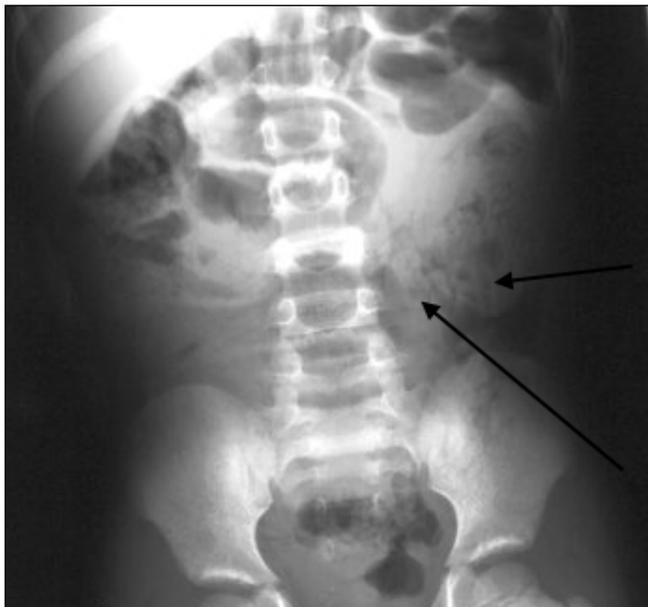


Fig. 1. Abdominal X-ray showing multiple serpigenous, tubular, soft-tissue densities (arrowed) in gas-filled bowel loops in the left mid and lower quadrants. The large numbers of impacted worms appear as a convoluted mass outlined by gas.



Fig. 2. Contrast study showing multiple tubular filling defects in the stomach, duodenum and proximal small bowel.