

# An unexpected cause of iron deficiency detected by capsule endoscopy

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## CASE REPORT

A 52-year-old woman was referred to our hospital for analysis of iron deficiency anaemia. Her medical history revealed extirpation of a meningioma, Graves' disease and atrial fibrillation. She had no complaints. Physical examination was normal. Laboratory investigations revealed microcytic anaemia (haemoglobin 7.3 mmol/l, mean cell volume 76 fl) and iron deficiency (ferritin 15 µg/l, normally >30). Upper gastrointestinal endoscopy, including duodenal biopsies, and ileocolonoscopy were performed, revealing no abnormalities. A video capsule endoscopy was subsequently performed using the Given® system to evaluate the small bowel for a possible bleeding source. Capsule endoscopy revealed abnormal findings (*figure 1*).

## WHAT IS YOUR DIAGNOSIS?

See page 248 for the answer to this photo quiz.

**Figure 1.** Capsule endoscopy image showing an abnormality in the jejunum



## DIAGNOSIS

Based upon the capsule endoscopy images, the diagnosis of ascariasis was made in this patient. Further laboratory investigations revealed a raised eosinophilic count of  $5.5 \times 10^9/l$  (normal  $<3.0 \times 10^9/l$ ) and an elevated level of total immunoglobulin E (456 kU/l, normal  $<115$  kU/l). The patient was treated with mebendazole 100 mg twice daily for three days. The haemoglobin level gradually normalised and remained normal in the following years.

*Ascaris lumbricoides*, an intestinal roundworm, is one of the most common helminthic human infections worldwide.<sup>1</sup> The highest prevalence of ascariasis occurs in tropical countries where warm, wet climates provide environmental conditions that favour year-round transmission of infection.<sup>2</sup> Transmission occurs mainly via ingestion of water or food (particularly raw vegetables or fruit) contaminated with *Ascaris lumbricoides* eggs and occasionally via inhalation of contaminated dust. Adult worms inhabit the lumen of the small intestine, usually in the jejunum or ileum. They have a life span of ten

months to two years and are then passed in the stool. The majority of infections with *Ascaris lumbricoides* are asymptomatic.<sup>1</sup> However, symptoms can occur as a result of direct tissue damage (manifested as occult blood loss in our patient) or due to an immunological response of the host to the infection with larvae, eggs or adult worms. Obstruction of the lumen of the gastrointestinal tract has been reported by an aggregation of worms.<sup>3</sup> In symptomatic patients, treatment is generally advised with anti-helminthic drugs.

## REFERENCES

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