

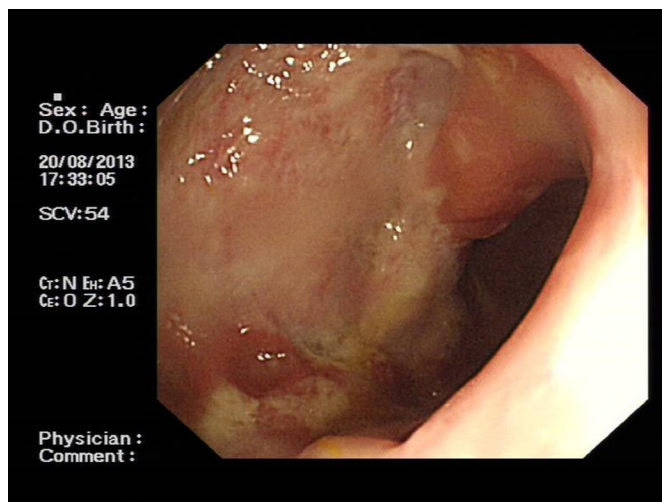
## EDITOR'S QUIZ: GI SNAPSHOT

## An 80-year-old man with caecal ulceration

### CLINICAL PRESENTATION

An 80-year-old man presented with a 3-month history of altered bowel habit, intermittent right iliac fossa abdominal discomfort and fluctuating perianal pain. He had a background of ischaemic heart disease and was taking atorvastatin, clopidogrel, bisoprolol, isosorbide mononitrate, fenofibrate, nicorandil and furosemide. Abdominal examination was unremarkable with rectal examination revealing a minor posterior fissure. He had a normochromic, normocytic anaemia of 108 g/L and a C-reactive protein of 5. Other bloods were normal.

A colonoscopy was arranged, which revealed a large area of deep ulceration in the ascending colon extending to the caecum ([figure 1](#)). Due to concern that this may be malignant, a CT was arranged and biopsies were taken. The CT revealed marked asymmetric right-sided colonic and caecal thickening ([figure 2](#)). Biopsies demonstrated non-specific chronic inflammation. There were no granulomas and no evidence of ischaemia or malignancy ([figure 3](#)).



**Figure 1** Endoscopic image of caecal ulcer.

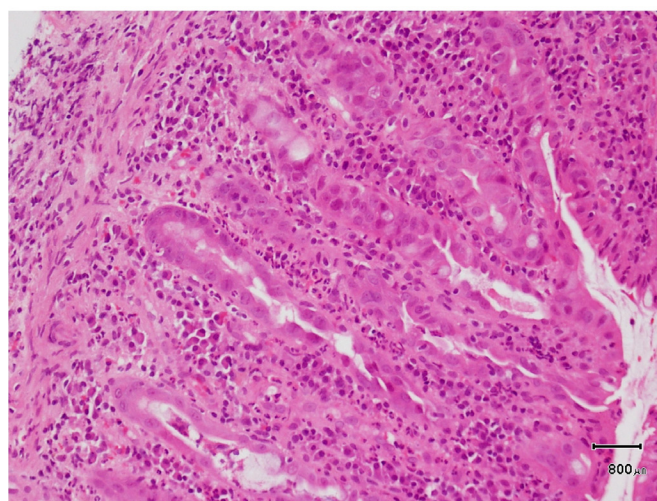


**Figure 2** Computed tomography demonstrating inflammation in caecum.

### QUESTION

What is the diagnosis and what management was instituted?

See page 1817 for answer



**Figure 3** Colonic mucosa with marked increase in acute and chronic inflammatory cells in the lamina propria with cryptitis, epithelial degeneration of the crypts and mucin depletion.

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## ANSWER

Nicorandil-induced colonic ulceration.

The patient's drugs were reviewed and nicorandil discontinued, which led to a dramatic resolution of all his symptoms over the next 6 weeks. Subsequent follow-up colonoscopy demonstrated complete healing of the ulceration with an entirely normal appearance to the right colon (figure 4). Over the subsequent 4 years, he has remained well with no recurrence of his symptoms.

Nicorandil is a well-reported but under-recognised cause of GI, cutaneous and ocular ulceration, which resulted in it being the focus of a drug safety update from the Medicines and Healthcare products Regulation Agency in 2016.<sup>1</sup>

The most commonly affected region of the GI tract is the anal canal with deep non-healing fissures characteristic, though ulceration can occur anywhere throughout the small and large bowel.<sup>2</sup> Colonic ulceration typically affects the caecum and ascending colon often causing large deep ulcers that may be mistaken for malignancy or Crohn's disease leading to a delay in diagnosis and potentially unnecessary interventions.<sup>3 4</sup> Nicorandil usage has also been associated with fistula formation in diverticular disease.<sup>5</sup>

Histology only reveals non-specific, non-granulomatous, chronic inflammatory changes, so a close and careful drug history is key to successful diagnosis with drug withdrawal usually leading to rapid resolution of ulceration.

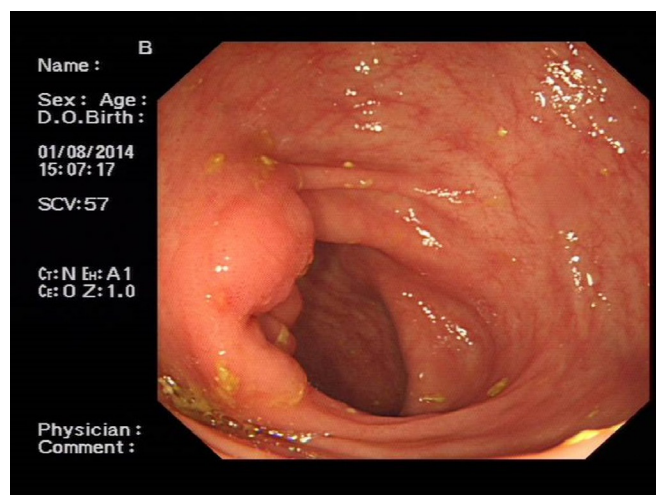
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**Figure 4** Caecum on follow-up endoscopy.

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## REFERENCES

- 1 Nicorandil. Now second-line treatment for angina - risk of ulcer complications. *Drug Safety Update* 2016;9.
- 2 Pisano U, Deosaran J, Leslie SJ, *et al.* Nicorandil, gastrointestinal adverse drug reactions and ulcerations: a systematic review. *Adv Ther* 2016;33:320–44.
- 3 Titi MA, Seow C, Molloy RG. Nicorandil-induced colonic ulceration: a new cause of colonic ulceration. Report of four cases. *Dis Colon Rectum* 2008;51:1570–3.
- 4 Lee BC, Allen PB, Caddy GR, *et al.* Nicorandil associated colonic ulceration: case series of an increasingly recognized complication. *Dig Dis Sci* 2011;56:2404–8.
- 5 McDaid J, Reichl C, Hamzah I, *et al.* Diverticular fistulation is associated with nicorandil usage. *Ann R Coll Surg Engl* 2010;92:463–5.