

Bloating after radiofrequency catheter ablation of atrial fibrillation

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CASE REPORT

A 52-year-old man presented with progressive bloating in the epigastric region and early satiety two days after he had undergone radiofrequency pulmonary vein catheter ablation for therapy-resistant paroxysmal atrial fibrillation. The abdominal fullness increased with intake. He was suffering from nausea, but no vomiting. Defecation was normal. Apart from paroxysmal atrial fibrillation there was no significant medical history. Domperidone, prescribed by his general practitioner, gave no relief of his symptoms. Physical examination showed some hypertympanic epigastric fullness. Laboratory tests were unremarkable. Electrocardiography and transoesophageal cardiac ultrasound were normal. A plain abdominal radiography was performed (*figure 1*).

WHAT IS YOUR DIAGNOSIS?

See page 272 for the answer to this photo quiz.

Figure 1. Plain abdominal radiography



During gastroduodenoscopy a distended stomach and a contracted pylorus were seen. Gastric atony and pyloric spasm have been described in small case series as extracardiac adverse effects of catheter ablation due to iatrogenic damage of the vagal nerve.^{1,3} It is suggested that nerve fibres innervating the pyloric sphincter and the gastric antrum travel within the left vagal trunk,¹ and these fibres are found to descend along the anterior aspect of the oesophagus in close proximity of the posterior left atrial wall and pulmonary veins.⁴ Thus from an anatomical perspective it is not inconceivable that pulmonary vein catheter ablation could cause vagal nerve damage. Moreover, gastric dilatation was a very well-known complication of vagotomy procedures performed for peptic ulcer disease, before highly selective vagotomy came into practice.⁵

There are no evidence-based guidelines for treatment and prognosis of gastric dilatation due to vagal nerve damage after catheter ablation. Conservative treatment with antiemetics, endoscopic injection of botulinum toxin into the pyloric sphincter, and gastric bypass surgery

have been described with mixed results.^{1,3} We treated our patient with intrapyloric injection of botulinum toxin, antiemetics, and the recommendation to frequently eat small liquid meals. So far, our patient reported only minor improvement in symptoms.

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