Enlarging Abdominal Aortic Aneurysm Causing Complete Obstruction of the Duodenum

A.A. Khan^a B. Kim^a K. Cox^a T.W. Davies^a F.A. Sandrasagra^b

Departments of ^aGeneral Surgery and ^bRadiology, Queen Mary's Sidcup Hospital, London, UK

An 87-year-old male presented with one-day history of worsening upper abdominal pain and profuse bilious vomiting. He was known to have an abdominal aortic aneurysm but deemed unfit for surgical repair. On examination, he was markedly dehydrated and hemodynamically unstable. The abdomen was grossly distended with maximum tenderness over the epigastrium and

right upper quadrant; no expansile mass was palpable. He was in biochemical renal failure. A CT angiogram (fig. 1) showed a large intact infra-renal abdominal aortic aneurysm with anterior kinking of the neck causing compression of the third part of duodenum against the superior mesenteric artery. The proximal half of duodenum and stomach were grossly dilated (fig. 2). Intravenous rehy-

Fig. 1. 3-D reconstruction image showing compressed duodenum (arrow) between neck of abdominal aortic aneurysm and superior mesenteric artery.

Fig. 2. Note dilated proximal stomach and duodenum (A = abdominal aortic aneurysm, D = duodenum, S = stomach).

dration and gastric decompression was instituted but he rapidly deteriorated and passed away. Post mortem confirmed the CT findings.

Duodenal obstruction is a rare presenting complication of abdominal aortic aneurysm [1]. It is usually due to compression of the third part of the duodenum by the abdominal aortic aneurysm itself or, less commonly, between the neck of the aneurysm and superior mesenteric artery [2]. Since advent of aortic surgery, intestinal bypass procedures have been largely abandoned. Surgical intervention is indicated in all fit patients and involves resection of aneurysm and graft placement.

References

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- 2 Sostek M, Fine SN, Harris TL: Duodenal obstruction by abdominal aortic aneurysm. *Am J Med* 1993;94:220–221.