Case	(170) Acute mesenteric ischemia. what to look for on a ct scan?
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CASE PRESENTATION

A 73 year-old woman with diffuse abdominal pain, cardiac disease, fever and leukocytosis was referred to our department with the clinical suspicion of acute diverticulitis.

Late venous phase contrast enhanced CT was performed without oral contrast media. It showed an unenhanced thin-walled ascending colon, with pneumatosis intestinalis, portal venous gas and gallstones and gallbladder wall thickening. There was a severe atherosclerotic disease affecting the mesenteric artery. In the basis of these findings we suggested the diagnosis of mesenteric arterial ischemia.

A right hemicolectomy and cholecystectomy were successfully achieved, with pathologic findings of intestinal ischemia and chronic cholecystitis. -

DISCUSSION

Mesenteric arterial thrombosis acoounts for approximately 25% of cases of acute mesenteric ischemia (AMI) and is the most common cause of AMI in patients over 70 years of age.

CT findings of AMI:

1.-Bowel wall thickening: nonspecific finding.

2. A high-attenuating bowel wall at nonenhanced CT: hemorrhagic infarction.

3.-A hyperattenuating bowel wall at contrastenhanced CT: nonspecific finding. It is caused by congestion or reperfusion.

4. Filling defects in the mesenteric arteries: specific finding.

5.-The absence of wall enhancement: specific finding that indicates cessation of arterial flow. If it persists, the bowel will infarct and perforate.

6.-A paper-thin bowel wall represents thinning of the wall caused by volume loss of the tissues and vessels in the bowel wall and adynamic ileus.

7.-Mesenteric stranding and ascities: nonspecific findings.

8.-Pneumatosis, portomesenteric venous gas and free peritoneal gas indicate transmural infarction of the bowel, with or without perforation.

CONCLUSION

AMI is a rare life-threatening condition with a high mortality rate. Biphasic contrast material–enhanced multidetector computed tomography (CT) is the first-line imaging test

for early diagnosis of the disease and for differentiation from other causes of acute abdomen.-

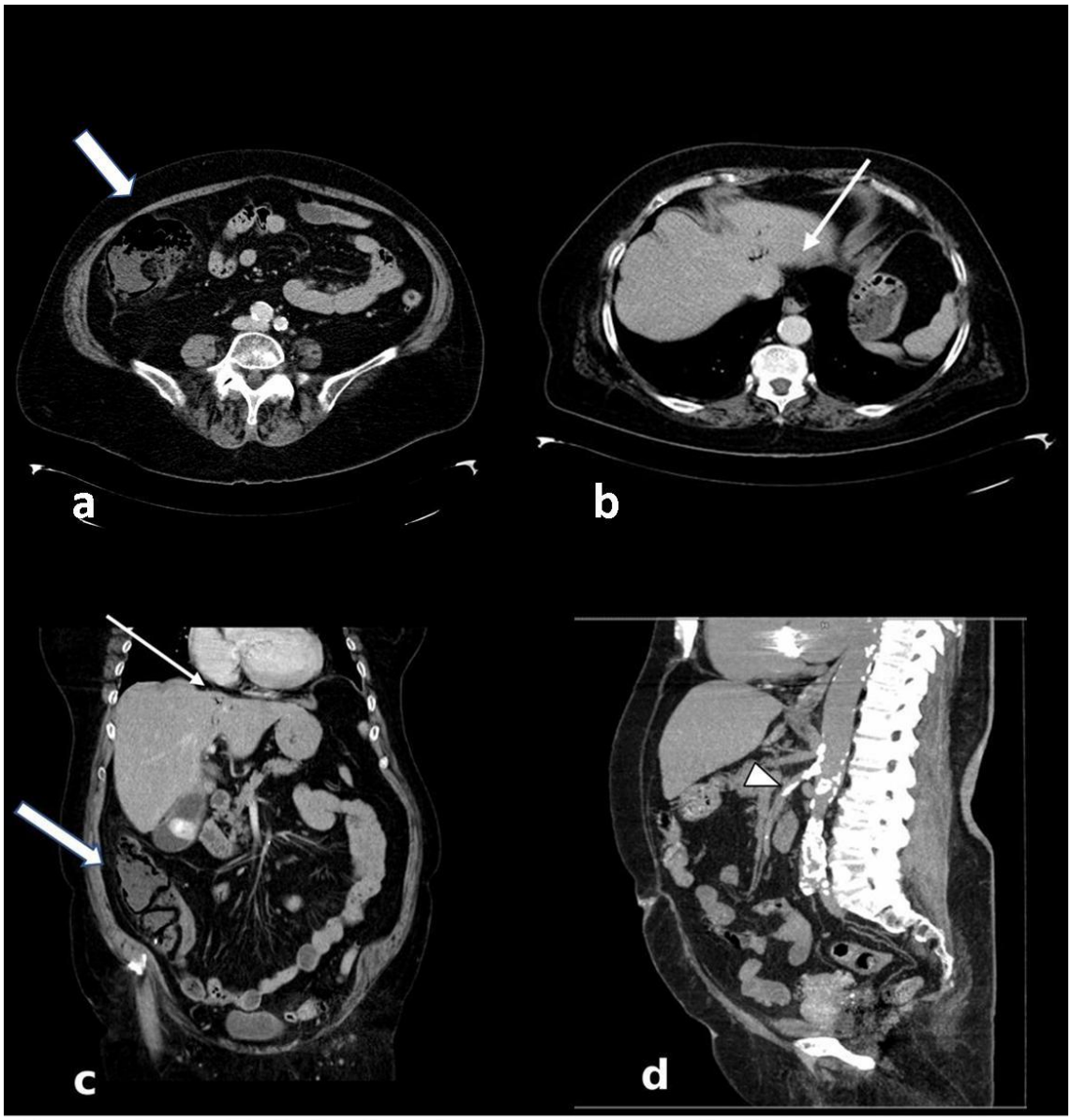

Figure 1: Irreversible ischemia and severe atherosclerotic disease. Late venous phase contrast enhanced axial scan (a, b) and coronal scan (c). Thin-walled ascending colon, with pneumatosis and no apreciable enhancement of the wall (thick arrow) and portal pneumatosis (thin arrow). (c) There are also gallstones and gallbladder wall thickening. (d) Sagittal non enhanced CT scan, which was done 2 years before, reveals calcification from atherosclerotic changes of aortic artery, celiac trunk and superior mesenteric artery with stenosis of the lumen. Cardiac valve prosthesis.

BIBLIOGRAPHY

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