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| Case | (166) Penetrating atherosclerotic ulcer |
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## CASE PRESENTATION

An 81-year-old man with cardiovascular risk factors and a history of ischemic heart disease consulted due to dyspnea at minimum levels. During his admission, he began with abdominal pain, increased lipase levels and maintained hypotension. An abdominal CT was requested with the suspicion of pancreatitis.

CT of the abdomen was first performed without intravenous contrast due to renal insufficiency: There was no signs of pancreatitis, Instead, there was a focal aneurysmal dilation of the abdominal aorta three centimeters below the exit of the left kidney artery with an high-density semilunar image and intimal calcified atheroma plaque displacement towards the interior of the aneurism, which suggested intramural hematoma with possible origin in an ulcerated plaque.

After intravenous contrast administration, CT demonstrated an opacified focal outpouching from the aortic lumen that extends to the wall that confirmed a focal ulceration.

Moreover CT showed parietal thickening of the ascending and blind colon, probably of ischemic origin. The mesenteric vessels were permeable.

## DISCUSSION

The term penetrating atherosclerotic ulcer describes an ulcerating atherosclerotic lesion that penetrates through the intimal layer into the media.

In the early stages, the lesion only ulcerate the intima and the patient is usually asymptomatic. With progression, it penetrates into the media and leads to an intramural hematoma of variable size.

Penetrating atherosclerotic ulcer can be completely resolved or remain stable, but it can also lead to aortic dissection, saccular aneurysms and even spontaneous aortic rupture.

The low systemic blood flow in the context of acute aortic syndrome produces decreased splanshnic perfusion. This situation is the trigger of the segmentalintestinal ischemia visualized in our study (non-occlusive intestinal ischemia).

## CONCLUSION

Penetrating arteriosclerotic ulcers fit within the framework of acute aortic syndromes, together with dissection and intramural hematoma. Although these entities can interrelate and may be difficult to differentiate, the typical finding of a contrast-filled out-pouching of the wall of the aorta on CT aortogram should point to a penetrating arteriosclerotic ulcer.

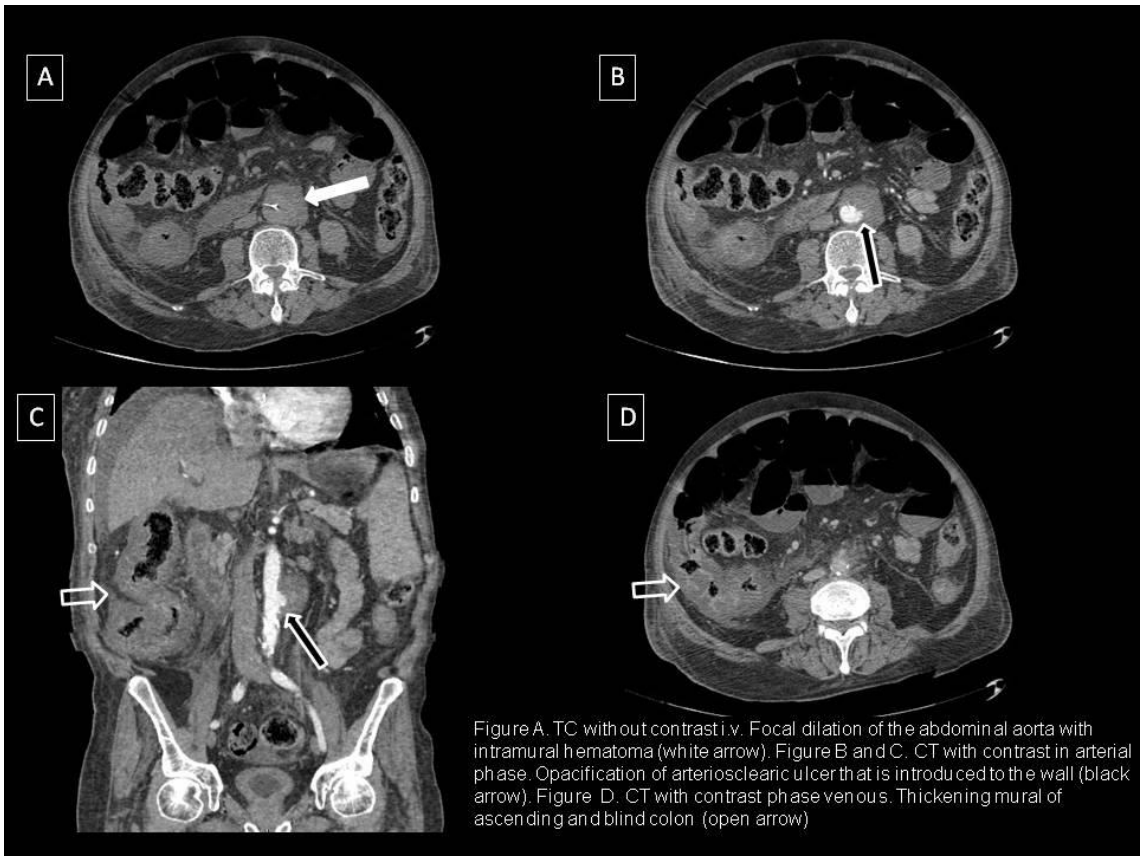


Figure A. TC without contrast i.v. Focal dilation of the abdominal aorta with intramural hematoma (white arrow). Figure B and C. CT with contrast in arterial phase. Opacification of arteriosclearic ulcer that is introduced to the wall (black arrow). Figure D. CT with contrast phase venous. Thickening mural of ascending and blind colon (open arrow)

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