Splenic Artery Infarction after Successful Management of Abdominal Aortic Aneurysm With Endovascular Stenting - a Case Report

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Dear Editor,
The endovascular aortic repair (EVAR) is the treatment of choice for the majority of patients with abdominal aortic aneurysms (AAA) by supporting endovascular technology[1-6]. But there are some potential complications during or post procedure[7-8]. We present a case who underwent endovascular aortic repair (EVAR) for an AAA occurred splenic artery infarction after procedure.

A 64 year old man with incidentally diagnosed AAA during abdominal ultrasonography was admitted our department. He was heavy smoker, diabetic and hypertensive. He had no abdominal pain. The blood pressure 128/69 mmHg, heart rate 68 bpm, and respiratory rate 15, with no cyanosis. There was no significant problem on transthoracic echocardiography and left ventricular ejection fraction was 67%. There was an aortic aneurysm at the level of the infrarenal level of the abdominal aorta with a maximum diameter of 61 mm with no extravasation below 15 mm of the left renal artery on computed tomography angiography (CTA). There was severe stenosis on proximal part of the left renal artery(Fig. 1-6). Splenic and other visceral abdominal arteries were normal. Surgery was planned but open surgery was presumed to be high risk and we decided to perform EVAR. Under local anesthesia, right femoral artery was used for delivery system and left femoral artery was used for aortography. Firstly, we tried to intervent to the right renal artery but guiding floppy wire was not forwarded to the distal part of the stenosis. It was postponed to the another seance. An endograft was implanted to the infrarenal level of the abdominal aorta (Medtronic Endurant II Stent Graft System) via the right femoral artery then the left leg of the graft(Medtronic Endurant II Stent Graft System) was deployed into the external iliac artery via the left femoral artery (Fig. 7-11). The procedure was completed without any endoleak or vascular complications. The vital signs were stable postoperatively but 2 days later from the procedure, the patient had left upper quadrant pain and 38,7 ºC fever. White blood cell counts were 17.700 e3/µL and hemoglobin level was 10,8. gr/dL. High sensitive CRP level was >20 mg/L and procalcitonin level was 6,04 ng/mL. Blood culture was positive(staphylococcus hominis). CTA was performed again and showed infarction of side branch of the splenic artery. Hematoma, endoleak or extravasation from the aorta at the level of the proximal part of the stent were not seen. We did not decide to perform any percutaneous or surgical intervention to the splenic artery. Antibiotics(piperacillin and daptomisin 1x500 mg) were started and administered for 10 days. The patient’s condition was improved (Fig. 12-15). White blood cell counts were 9600 e3/µL and procalcitonin level was 0,296 ng/mL. He was discharged after 14 days with no complication. In conclusion, intraabdominal visceral artery complications either procedure related or any other reason related have severe mortality and morbidity [9]. Splenic artery thrombosis or infarction is unexpected potential complication during or post EVAR procedure. There is no data about the relationship between splenic artery thrombosis or infarction and EVAR. This is a rare complication but it may be fatal if the patients were not followed closely. The left upper quadrant pain is a signal for splenic artery thrombosis or infarction after EVAR as in our case.

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Declarations of Interest
The authors declare no conflicts of interest.

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