Successful management of an abdominal aortic aneurysm infected with Campylobacter fetus: a case report

M. Dimitrief, F. Cherbanyk, H.L. Chan, C.L. Hanauer, S. Deglise*, E. Pezzetta O. Martinet

Service de Chirurgie Hôpital RIVIERA-CHABAIS site Montreux
*Service de chirurgie cardiaque et vasculaire, CHUV, Lausanne

Introduction: Infected aortic aneurysm is a rare entity in the antibiotic era, representing less than 2% of all aortic aneurysms. It represents the final evolution of a prior infectious arteritis or a preexisting aneurysm contaminated from an infectious focus or systemic bacteremia mainly in elderly or immunocompromised patients. The genus Campylobacter can cause a variety of infections. The species fetus is the one most frequently associated with systemic campylobacteriosis. It has a tropism for endovascular tissue and causes significant mortality.(1,2,3)

Case presentation: A 73 year-old man presented to the emergency department after 4 days of fever, chills and pain in the lower abdomen irradiating to the back. Seven days ago he had a coronarography. He also noticed diarrhea during 3 days. He had a temperature of 37.8°C, normal blood pressure and heart rate and mild abdominal pain without signs of peritonitis. No pulsatile abdominal mass was palpable. The white blood cell count was 15,500 G/l and CRP 315 mg/l. The abdominal CT showed an infra renal atherosclerotic aortic aneurysm with periaortitis (Fig1). He was given Ceftriaxone 2gr iv and was referred to the University Hospital. A new CT was realized 24h later showing signs of pre rupture (Fig 2,3). An endovascular stent graft was urgently placed via the left femoral artery allowing minimally invasive intervention and prompt aneurysm exclusion (Fig 4,5). Blood cultures were positive for a Campylobacter fetus. The patient had an uneventful post-surgical recovery. He was discharged home on post-operative day 9 with an iv antibiotic treatment for 6 weeks. He was questioned thoroughly but failed to report any consumption of unpasteurized milk or raw meat.

Fig 1: Infra renal aortic aneurysm with periaortitis.

Fig 2,3: Second CT scanner showing signs of aneurysm pre rupture.

Fig 4,5: CT realised on post operative day 3 showing a good positioning of the endoprosthesis and a type II endoleak requiring no specific treatment.

Conclusions: The natural history of an aortic aneurysm infected by Campylobacter fetus is that of a rapid progression to rupture and usually death. The rarity of cases due to Campylobacter fetus is likely to explain the great heterogeneity of antibiotics used and the duration of therapy, ranging from 4 weeks to many months(4) Campylobacter fetus should be considered in all cases of infected aneurysm in elderly or debilitated patients. A prompt surgical treatment, regardless of the technique used, associated with antibiotics can be life saving(5)

References: