An unexpected finding in a patient with haematuria

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Figure 1. Four chamber computer tomographic view of the heart showing an abnormal lateral wall of the left ventricle.

A 70-year-old man presented to the urology department because of haematuria. Computed tomography performed to visualise the kidneys unexpectedly revealed an abnormal aspect of the lateral wall of the left ventricle (LV) (figure 1). He was

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Figure 2. Four chamber (A) and short axis (B) cardiac magnetic resonance view using late enhancement.

subsequently referred to our cardiology department. He had suffered from an inferior wall myocardial infarction 21 years earlier. Coronary artery bypass grafting was performed six years later using two venous grafts and the left internal mammary artery. Afterwards the patient was in an excellent clinical condition. He denied having had any cardiac symptoms during his visits to the outpatient clinic. Physical examination revealed no abnormalities.

Further analysis was performed by cardiac magnetic resonance imaging (figures 2A and 2B, movies 1 and 2 on the Journal's website at www.cardiologie.nl).

What is your diagnosis and how would you treat this condition? ■

Answer

You will find the answer on page 146.

Answer to the moving images on page 137

Figure 1 shows that contrast is not only visible in the lumen of the left ventricle, but also next to the lateral wall. The short axis late enhancement magnetic resonance (MR) view shows that the abnormality is partially thrombosed (figure 2B). In the cardiac MR movies systolic filling is demonstrated, with backflow during diastole (movies 1 and 2, www.cardiologie.nl). The figures are consistent with a partially thrombosed false aneurysm of the basal lateral wall. By definition, left ventricular false aneurysms result from a rupture of the free wall of the left ventricle.¹ The margin of the false aneurysm consists of pericardium. The most common cause is transmural myocardial infarction. The natural history is largely unknown. The considerable risk associated with a surgical intervention should be weighed against the risk of further expansion and rupture.¹ Most patients with a false aneurysm are symptomatic.¹ Recently, a minimally invasive repair of a left ventricular false aneurysm was reported using a CT-guided thrombin injection into the false aneurysm.²

Because of the excellent clinical condition of our patient and the apparently long period during which the false aneurysm had been present, suggesting a good prognosis, a conservative management was proposed.³ Advice for rigorous blood pressure control was given.

Moving images illustrating this condition are shown on the journal's website at www.cardiologie.nl. ■

References

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- 3 Moreno R, Gordillo E, Zamorano J, Almeria C, Garcia-Rubira JC, Fernandez-Ortiz A, et al Long term outcome of patients with post-infarction left ventricular pseudoaneurysm. *Heart* 2003;**89**:1144-6.