Long term aortic stenosis on magnetic resonance imaging after direct repair for acute traumatic rupture of the thoracic aorta

Jean-Pierre Meunier*, Etienne Tatou, Roger Brenot, Michel David

Department of cardiovascular surgery, Hôpital du Bocage, 2 Boulevard de Latte de Tassigny, BP 1542, 21034 Dijon cedex, France

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Thirty two patients underwent aortic repair for acute traumatic rupture of isthmus in our institution between 1978 and 1998. Twenty seven direct sutures were performed and five vascular prostheses were implanted. Medullar protection was: cardiopulmonary bypass (5/32), Gott’s shunt (4/32), left atria-femoral artery circulatory assistance (3/32), and 20 simple clamps. Hospital mortality was 9.38% (three patients). No paraplegia was observed, but there were four cases of regressive spinal cord injury (12%). Follow-up was 24/27 survivors (two subsequent deaths) with a mean time of follow-up of 9 ± 4.8 years. The clinical aortic status was excellent in all the patients. Two-thirds of these patients have been checked by MRI; aortic reconstitution revealed: a normal thoracic aorta in 14 patients (Fig. 1), a stenosis on the direct suture line in three
patients (Fig. 2), and one case of prosthetic stenosis. All patients with those stenoses after direct repair were totally asymptomatic, and had no arterial hypertension. Do the patients with those morphological images need a more long term follow-up? If the answer is positive, the non-invasive MRI seems to be particularly suitable for this.