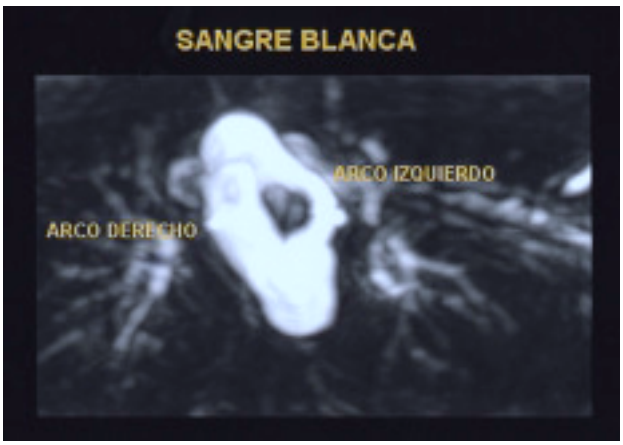

Fig. 1.

Fig. 2.

Double Aortic Arch

A 43-year-old male patient, who was undergoing study for heartburn, was referred for cardiovascular magnetic resonance imaging due to an accidental finding in the esophagogram. This finding was a characteristic inverted S-shaped indentation that was compatible with double aortic arch.

The magnetic resonance imaging study consisted of white blood sequences (multislice) (Figure 1), black blood (double inversion-recovery) (Figure 2), functional cinema sequences following the cardiac axes, and 3D vascular magnetic resonance imaging (Figure 3). A complete double aortic arch with a right dominant arch and no associated heart disease was observed. The right carotid and left subclavian arteries arose from the right arch and the left subclavian and carotid arteries arose from the left arch, each separately. The other vessels had a normal morphology and position. Cardiac cavities were also of normal size, structure, and function.

The term «vascular ring» is applied to malformations of the aortic arch or pulmonary artery that establish abnormal relations with the esophagus and trachea. The most frequent and severe vascular ring is produced by a double aortic arch in which the four embryonal aortic arches persist on both sides. The symptoms derive from compression of the esophagus and trachea and consist of respiratory difficulties, cyanosis (specifically related with eating), stridor, and dysphagia. The most important factors that determine treatment are the severity of symptoms and the anatomy of the malformation.

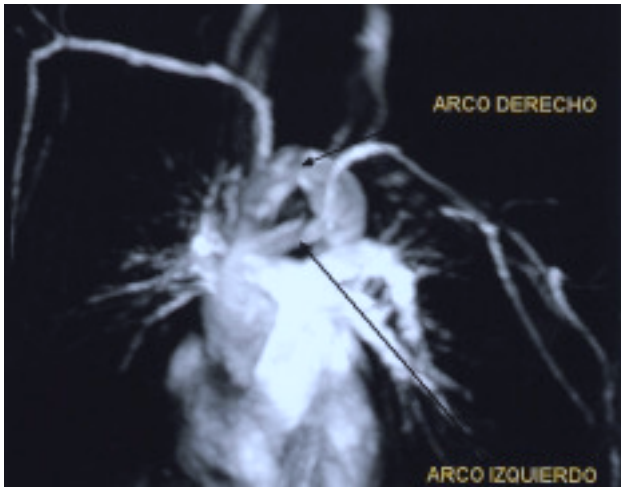

Fig. 3.

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