Acute aortic dissection in an adult patient with retro-oesophageal aortic arch

Jamil Hajj-Chahine*, Guillaume Sztark, Géraldine Allain and Pierre Corbi

Department of Cardio-Thoracic Surgery, University Hospital of Poitiers, Poitiers, France

* Corresponding author. Department of Cardio-Thoracic Surgery, University Hospital of Poitiers, 2 Rue de la Milétrie, 86200 Poitiers Cedex, France. Tel: +33-610868990; e-mail: jamilhajjchahine@yahoo.fr (J. Hajj-Chahine).

Received 17 November 2013; received in revised form 8 January 2014; accepted 20 January 2014

Keywords: Aortic dissection • Abnormal aortic arch • Vascular ring

A 44-year old patient with hypertension presented with severe chest pain. A multislice computed tomography scan with volume-rendering reconstruction (Fig. 1A and B) revealed an acute aortic dissection involving a very rare aortic arch anomaly with a partial vascular ring due to the left common carotid artery (Fig. 2A and B). The patient refused surgical treatment.

Figure 1: (A and B) axial computed tomography scan demonstrating the intimal flap involving the aortic arch and the descending aorta and the completely retro-oesophageal course of the aortic arch. Standard surgical treatment includes aortic arch replacement under hypothermic circulatory arrest with cerebral perfusion. Hybrid procedure is another alternative for aortic arch disease.

Figure 2: (A, anterior view) Volume-rendering reconstruction from computed tomography scan revealed that the following branches were arising from the abnormal aortic arch: left common carotid artery, right common carotid artery, right subclavian artery and left subclavian artery. The left common carotid artery contributed to the partial vascular ring, however, there were no symptoms of trachea-oesophageal compression in this patient. (B: posterior view) clearly showing the extension of the dissection of the aortic arch.