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A time bomb in the thorax: the giant ascending aortic aneurysm. Case report

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SUMMARY: **A time bomb in the thorax: the giant ascending aortic aneurysm. Case report.**

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We report the case of a 82-year-old woman, asymptomatic, subject to chest computed tomography for trauma. Then the patient underwent surgery. Before sternotomy, femoro-femoral bypass was starter in order to decompress the aneurysm; using deep hypothermia and circulatory arrest, ascending aorta and hemiarch replacement were performed with a Dacron graft. Post-operative course was uneventful.

RIASSUNTO: **Una bomba ad orologeria nel torace: un gigantesco aneurisma dell'aorta ascendente.**

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L'aneurisma gigante dell'aorta è considerato una bomba ad orologeria nel torace. Riportiamo il caso di una donna di 82 anni, asintomatica, sottoposta a tomografia computerizzata del torace per trauma. La paziente è stata quindi sottoposta ad intervento. Prima della stereotomia, è stata collegata alla circolazione extracorporea mediante bypass femoro-femorale per decomprimere l'aneurisma; previo arresto circolatorio e in ipotermia profonda, l'aorta ascendente e l'emiarco sono stati sostituiti con una protesi in dacron. Il decorso post-operatorio non ha avuto complicanze.

KEY WORDS: Aneurysm - Ascending aorta - Surgery.
Aneurisma - Aorta ascendente - Chirurgia.

Introduction

Giant ascending aortic aneurysm is a rare condition and few other cases have been reported in literature. Essential in the management of the giant ascending aortic aneurysm is a good evaluation of benefit/risk of surgical treatment and a reasonable surgical approach.

Case report

An 82-year-old woman was referred to our Department due to a casually disclosure of a giant fusiform aneurysm of ascending aorta during a computed tomography scan performed for vertebral trauma. The aortic aneurysm started 6 cm upon the valve plane with a mild dilatation of the sinotubular junction; the tubular portion was affected up to the proximal part of the aortic arch with a maximum transverse aortic diameter of 8,5 cm and a length of 12 cm (Figs. 1 and 2).

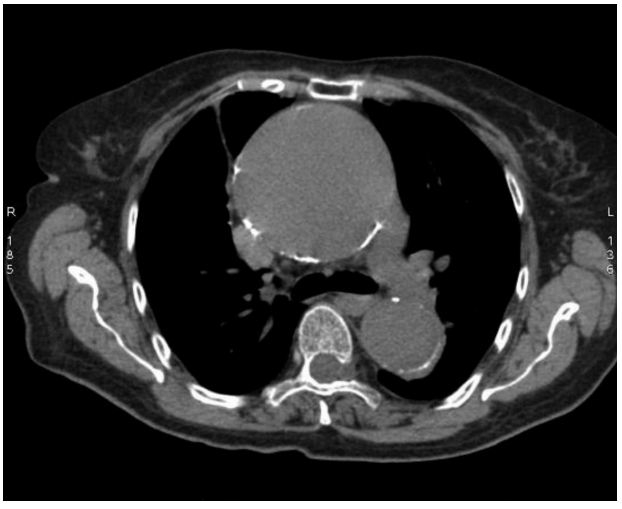

Fig. 1 - Computed tomography scan (axial view). Giant ascending aortic aneurysm with maximum transverse diameter of 85 mm and calcification of the aortic wall.

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Fig. 2 - Computed tomography scan (coronal view). Fusiform aspect of aneurysm.

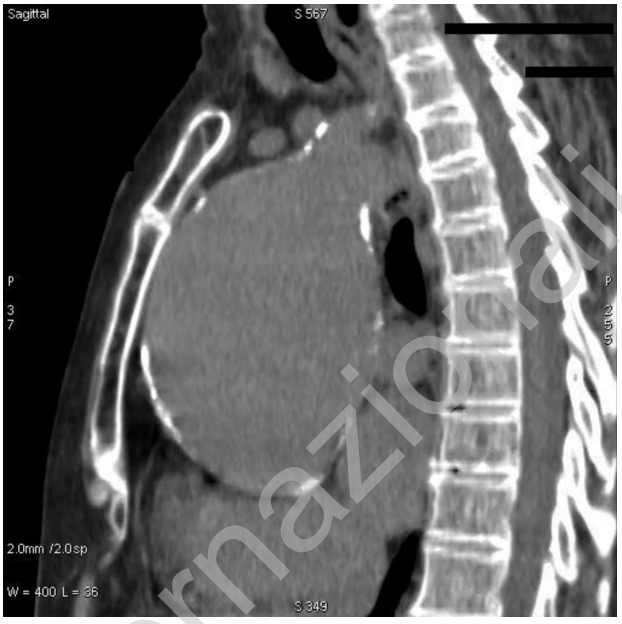

Fig. 3 - Computed tomography scan (sagittal view). Close relationship between the aneurysm and the sternum.

The natural history of untreated thoracic aortic aneurysm indicates that incidence of death due to rupture or dissection is very high and size of aneurysm appear to be the most important predictor, therefore an emergent surgical treatment was performed. Before sternotomy, femoro-femoral bypass was established to decompress the aneurysm which shows close relationship with the sternum (Fig. 3). Using deep hypothermia and circulatory arrest, the replacement of the ascending aorta and hemiarch was performed with a Dacron graft. The postoperative course was uneventful and the patient was discharged on postoperative day 7.

Conclusion

Our case shows that the surgical treatment of a giant aortic aneurysm may be successful even in octogenarians. At present we consider that the femoral approach for the cardio-pulmonary bypass represents a surgical challenge, especially in older patients that can present severe peripheral vessel disease (1-3). Therefore we use to cannulate the right axillary artery and the femoral vein in case of ascending aneurysm involving the proximal aspect of the aortic arch.

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