

The Dynamic Evolution of Aortic Intramural Haematoma

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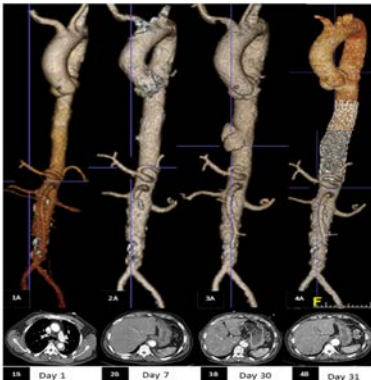
Background

Intramural haematoma of the aorta (IMH) is a variation of aortic dissection and considered one phenotypic form in the spectrum of acute aortic syndromes (AAS). The natural history of the disease is still poorly understood and thus strategies for therapeutic management are not established.

Case report

A 64 years old patient with a history of hypertension was admitted with an episode of crushing chest pain at rest. Coronary angiography excluded coronary artery disease and ACS. Subsequent ECG gated CT scan revealed IMH encompassing the distal arch and the descending aorta with no visible communications, ulcers or dissection (figure 1A,1B).

The patient was admitted and subjected to strict blood pressure management and close surveillance. A follow up CT scan 7 days later showed clear progression to aortic ulcer and the suspicion of initiation to overt aortic dissection despite the adequate medical management (figure 2A,2B). The patient remained asymptomatic and medical management was continued but the patient was kept in-hospital for close surveillance. At day 30 after the admission another CT scan demonstrated an localized ulcer having progressed to an overt type B aortic dissection with formation of a pseudoaneurysm; interestingly the IMH at the distal arch has been resolved and absorbed (figure 3A,3B). With evidence of focal degeneration and a total diameter of 55mm percutaneous endovascular treatment was suggested to prevent rupture. Deployment of an “Active Control” Gore stent-graft across the entry site of the dissection under both TOE and fluoroscopic guidance revealed complete sealing of the single entry of the localized dissection and finally triggered a remodeling process (figure 4A,4B).



Conclusion

This case illustrates the dynamic evolution of IMH (in the spectrum of the AAS) and the importance of serial imaging to manage IMH properly. Serial imaging using CT and/or MRI for surveillance are essential in the management of the dynamic entity of IMH.