It's Aneurysmal, it's Stenotic, it's Tuberculosis

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SUMMARY

Tuberculous vasculitis is a very rare presentation of tuberculosis. So far this is the second reported case in the literature. The diagnosis of this disorder is based on the clinical presentation as well as blood investigation results. With the ever improvement in modern medicine and improvement in endovascular treatment of such diseases, the morbidity and mortality of these patients have been dramatically reduced with better clinical and survival results. We present a case of endovascular stenting of a stenotic subclavian artery with good results.

KEY WORDS:
Tuberculosis, Subclavian artery aneurysm, Endovascular stenting

INTRODUCTION

Tuberculous vasculitis is a very rare. There has only one reported case regarding a similar presentation. The diagnosis of this entity is based on the clinical presentation and the chemical as well as the radiological imaging results. Previously the treatment of this disorder would have been open surgery. We feel that this type of surgical intervention would have increased the morbidity and mortality of these patients especially as the defect in the subclavian artery lies deep in the chest. The advent of endovascular stent technology have made it possible to as reducing the complication rates.

CASE REPORT

A 32-year-old man presented with a 1-year history of left upper limb pain and numbness which was increasing in severity. He initially sought treatment at a district hospital, which did not resolve his problem. By this time the pain became more and he started to develop an ulcer on the dorsum of his left hand in the size of a 10-cent coin and was gradually increasing in size.

Patient subsequently sought treatment at Hospital Universiti Sains Malaysia(HUSM) where initial examination was done and an angiogram done showed a left brachial artery stenosis for which an angioplasty was performed but the stenosis recurred. At this time, he also developed a gangrenous 2nd digit of the left hand for which a Ray's amputation was done. He was then referred to the Vascular unit in Hospital Kuala Lumpur(HKL) for further management.

We investigated him and noted that his ESR was 120mm/h and his sputum for AFB was positive. His chest X-ray also showed features suggestive of pulmonary tuberculosis. His thrombhophillia and rheumatology workup was negative. Since he had active pulmonary tuberculosis, we decided to treat with anti tuberculous drugs. CT angiogram was done which showed a left subclavian artery aneurysm with stenosis distally.

Fig. 1: Ulcer of the dorsum of the left hand.

Fig. 2: Angiogram of the left subclavian artery showing the stent placement.

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We proceeded with a right vertebral plus crossover angiogram for the left subclavian aneurysm. At this time we decided to proceed with left subclavian angioplasty and stenting for the left subclavian artery.

Post-procedure there were no complications and the patient had reduced pain and numbness.

DISCUSSION

Subclavian artery aneurysm accounts to less than 2% of aneurysms. Tuberculosis as the causal agent has not been reported yet in the literature. There has been a report regarding tuberculosis infection resulting in a popliteal artery aneurysm[1]. It is postulated that *Mycobacterium tuberculosis* initiates a hypersensitivity reaction in large and medium vessels[2]. Stenosis can also occur as obstructive lesions are produced by circumferential intimal thickness and transmural fibrous scarring, with minimal or no calcification[3]. Residual stenosis after angioplasty is an important determinant of restenosis, and is related to the resistance offered by the lesion to dilatation, and to elastic recoil. Resistance of such lesions to plain balloon dilatation is well known[4-5]. Stents are useful in reducing elastic recoil and in tacking down dissections.

CONCLUSION

Subclavian artery aneurysm with stenosis is a rare presentation secondary to a tuberculous infection. There is a role of endovascular stent placement in the treatment of these patients.

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