

VASCULAR IMAGES

Sarcoidosis with double saccular abdominal aortic aneurysms

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A 60-year-old man was noted to have proteinuria and a raised serum creatinine level (1.7 mg/dL) at an annual medical check-up. Laboratory investigations with abnormal findings were serum calcium, 9.9 mg/dL; serum complement C3, 151 mg/dL; C4, 53.9 mg/dL; CH50, 69 mg/dL; and angiotensin converting enzyme, 34.4 mg/dL. A tuberculin test result was negative. Rheumatoid factor, antinuclear antibody, and immunoglobulin levels were normal. A percutaneous renal biopsy revealed noncaseating sarcoid granulomas with giant cells and a lymphocytic infiltrate. A diagnosis of sarcoidosis was made.

Contrast-enhanced multislice computed tomography (CT) angiography with three-dimensional reconstruction revealed two infrarenal saccular aortic aneurysms arising from the right side of the aorta (Cover, anterior view; A, posterior view). Sclerotic changes were present along the entire length of the abdominal aorta.

We proceeded to surgical repair of the abdominal aortic aneurysm through a median laparotomy. At operation, there was significant para-aortic lymphadenopathy. The aortic wall was highly sclerotic, partially calcified, and friable. Histologic findings of the para-aortic lymph nodes revealed typical sarcoid lesions containing giant cells and noncaseating sarcoid granulomas (B). The aneurysmal wall contained atheromatous plaque with a nonspecific lymphocytic infiltration (C). These findings are consistent with a diagnosis of sarcoid aortitis.

COMMENT

Sarcoidosis involving the aorta is extremely rare. Lesions can be found at various sites within the thoracic or abdominal aorta.¹ A few cases of surgical reconstruction for abdominal aortic aneurysms with sarcoidosis have been reported.²⁻³

Occasionally, sarcoid granulomas are not found in the aneurysmal wall.¹⁻³ In these cases, histologic findings are mainly atherosclerosis and myxoid degeneration. As in our patient, surgical reconstruction can be difficult because of the friability of aortic tissue.² This is secondary to the inflammatory process within the aortic wall. Preoperative systemic corticosteroid therapy may ameliorate this process and reduce tissue friability.³

We present a case of successful repair of a sarcoid abdominal aortic aneurysm. As there are very few cases of this condition in the literature, evidence for successful management is anecdotal. Furthermore, long-term outcome for surgical intervention for sarcoid aortic aneurysms is unknown. As such, we advocate close monitoring using conventional imaging techniques such as CT.

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