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 C\(\text{3}\), 131 mg/dL; C\(\text{4}\), 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.

REFERENCES


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