



Renovascular Hypertension Due to Midaortic Syndrome Associated with Chronic Takayasu Arteritis Successfully Treated with Multiple Simultaneous Visceral Bypasses

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A 52-year-old female was transferred with a 2-year history of intermittent claudication and high blood pressure (BP). She was treated for rheumatoid endocarditis in childhood. The BPs of the left arm and right arm were 187/99 and 169/90 mmHg, respectively. Carotid bruit was absent

and the pulses of all four extremities were palpable. Blood tests including inflammatory markers were unremarkable. Computed tomography showed tight segmental narrowing of the abdominal aorta, severe stenosis of the bilateral renal

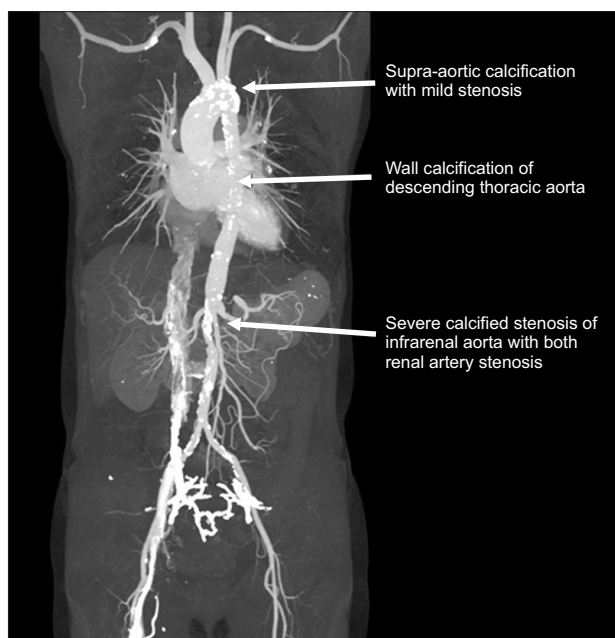


Fig. 1. Preoperative computed tomography angiography showed multiple calcification and stenosis in the aorta.

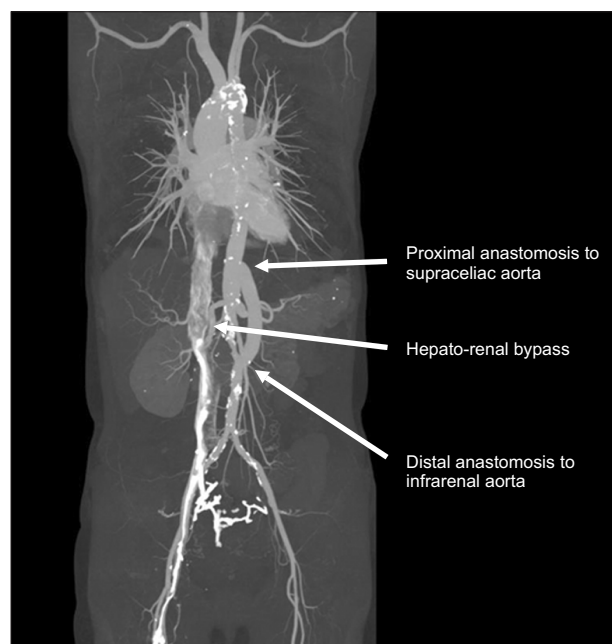


Fig. 2. Postoperative computed tomography angiography showed supraceliac aortic-infrarenal aortic bypass and hepato-renal bypass.

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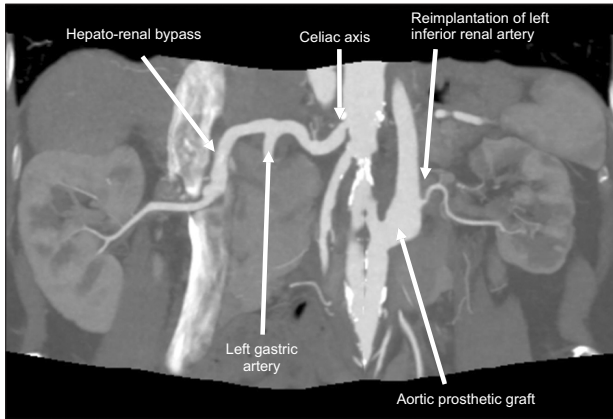


Fig. 3. Reconstructed computed tomography angiography showed the both renal artery revascularization; right hepato-renal bypass and left inferior renal artery reimplantation.

arteries (RAs), diffuse calcification of the thoracic aorta, and supra-aortic arteries compatible with chronic Takayasu arteritis (TAK) (Fig. 1). Rheumatologists confirmed a lack of active vasculitis. An elective operation was performed consisting of a supraceliac aortic-infrarenal aortic bypass with a 14-mm Dacron graft, left inferior RA reimplantation to the graft, and hepato-right renal bypass with a reversed

great saphenous vein (Fig. 2, 3). The postoperative course was uneventful and her BP was well controlled with oral nifedipine. After a year of aspirin and clopidogrel, the patient was maintained on aspirin alone. At 2 years of follow-up, there is no evidence of graft stenosis or renal dysfunction.

Mid-aortic syndrome (MAS) is a rare disease characterized by severe stenosis of the distal thoracic or abdominal aorta with frequent involvement of visceral and renal arteries [1]. TAK is one of the most common causes of MAS in adults. MAS commonly presents with claudication and uncontrolled hypertension related to aortic coarctation or RA stenosis. The possibility of surgical revascularization depends on the extent and location of the aortic disease and calcification. In this case, proximal anastomosis was performed on the supraceliac aorta, where the calcification was the least evident. While the left inferior RA was reimplanted to the graft at 5 o'clock position, the right RA stenosis was corrected by a different inflow: hepato-renal bypass using a vein graft. Evaluation and control of disease activity are of paramount importance upon vascular reconstructions in TAK [2-4]. Fortunately, there was no evidence of recurrent vasculitis in this case.

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