Rapid aortic aneurysm formation in Marfan patient with dissection of the entire aorta

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A 38-year-old male with Marfan syndrome was admitted to the emergency department because of an acute onset of abdominal pain. Twelve years ago the patient underwent a Bentall procedure for acute aortic dissection type-A. The patient used beta-blocker therapy and computed tomography (CT) was performed regularly to evaluate the aortic repair and aortic dilation. By this, the patient was known to have a residual type-A dissection distal from the Bentall repair extending into the right brachiocephalic and the left subclavian artery (Panel A and E, thick arrows). Because recurrent aortic dissection was suspected, CT angiography was performed. A new dissection type-B was present with origin distal from the left subclavian artery and extending into the right and left iliac arteries (Panel C–F, thin arrows). The new dissection was associated with substantial dilatation of the aorta. (Panel D compared with B). Routine follow-up, 4 months later, showed rapidly progressive dilatation of the abdominal aorta at the celiac trunk level (Panel G).

Aortic dilatation is a well-known cardiovascular complication in Marfan syndrome patients and is a major risk factor for aortic dissection. As shown in this patient recurrent aortic dissection itself can be accompanied with increase in aortic diameter, which can be followed by rapid formation of aneurysm. Regularly imaging of the entire aorta to evaluate early or late dilatation seems to be indicated. This patient successfully underwent aortic arch and descending aortic repair.

Conflict of interest: none declared.

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