Extensive aortic prosthesis dilatation

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A 75-year old woman underwent successful ascending aortic repair for type A aortic dissection 14 years ago (Figs 1 and 2). A recent computed tomographic (CT) scan showed a Gelweave™ prosthesis (Vascutek, UK) that was originally 30 mm, with an extensive dilatation of 42 mm in diameter. This dilatation had already occurred within the first years and has remained stable since then.

Figure 1: A CT scan 2 years (A) and 14 years (B) after the initial aortic repair. It shows the enlarged prosthesis diameter of 42 mm (black dotted arrows), which has remained stable over time. Compared with the original dimension, the cross-sectional area of the prosthesis increased by 96%, and the prosthesis wall tension by 40%.

Figure 2: Reconstructed three-dimensional angiography demonstrating the enlarged aortic prosthesis compared with the aortic root and the proximal aortic arch. White arrows mark the proximal and distal anastomosis site.