References


eComment: Retrograde aortic stent graft compression in the mid- and long-term run after endovascular repair of type 3B aortic dissecting aneurysms

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We read with interest the case report by Porcu et al. [1] in which they presented endovascular stent graft repair of type B aortic aneurysm in a challenging patient with giant-cell arteritis. The postoperative course was complicated with anterior displacement of stent graft in the mid-term follow-up which was again successfully treated with endovascular stent grafting [1].

Although in the current era Stanford dissection classification is more commonly pronounced, DeBakey aortic dissection classification may be more useful when treating these pathologies with endovascular stent grafts. As the type 3A dissections, when not progressing proximally, end above the diaphragm, endovascular stent graft applications for the treatment of type 3A aortic dissections usually result in cure, as they both cover the proximal tear as well as compress the false lumen completely [2].

On the other hand, endovascular treatment in case of type 3B dissections is done for the exclusion of the aneurysmatic segment of the aorta [3]. Additionally, as visceral arteries may originate from the false lumen, closure of the false lumen during stent grafting may be an undesirable effect. Hence, percutaneous fenestration technique is also used to prevent such unwanted conditions.

However, the patency of the false lumen is a major prognostic factor in the mid- and long-term run for the patients with type B aortic dissections, both following open repair [4] and endovascular stent grafting [3]. After endovascular stent grafting of type 3B dissecting aneurysms, blood flow between the false and true lumina through fenestrations may also leak into the aortic lumen between the stent graft and the covered aorta. This can cause a new aneurysm at the previously excluded aneurysmatic segment of the aorta and may further lead to displacement and/or collapse of the stent graft.

This may be the possible cause in the authors’ case [1]. Although it is not easy to understand whether it is a type 3A or 3B dissection from the three-dimensional reconstructions of the patient’s CT-scans, pre-treatment axial CT-scan views indicate a type 3B aortic dissection.

Furthermore, we would like to ask whether the authors have performed balloononing to the distal end of the stent grafts at the end of both procedures while the same complication may repeat as long as there is blood flow in the false lumen.

References


