

Early results of combined aortic arch debranching and thoracic endovascular repair

The hybrid technique for managing aortic arch diseases has been introduced recently into the surgical armamentarium. We aimed to evaluate the early post-operative outcomes after aortic arch debranching and endovascular repair (TEVAR) of aortic arch aneurysms or dissection.

Between March 2015 and September 2020, 17 patients underwent elective aortic arch debranching concomitant with TEVAR. Thirteen patients had aortic arch aneurysms, and four had chronic dissection. Study outcomes were early postoperative complications such as stroke, paraplegia, renal insufficiency, and 30-day mortality.

Results: The mean age of our patients was 61.2 ± 7.6 years; 12 of them were males (70.6%). Five patients underwent total debranching (29.4%). All debranching procedures were followed with TEVAR. 30-day mortality, stroke, permanent paraplegia, and renal failure occurred in one patient (5.9%), while transient neurological deficit occurred in two patients (11.8%).

Hybrid management of aortic arch pathologies showed encouraging early results. The combination of surgical aortic arch debranching and TEVAR could be an option for managing aortic arch diseases. However, larger studies with longer follow up are recommended.