CONVENTIONAL THORACOABDOMINAL AORTIC ANEURYSM REPAIR AFTER FROZEN ELEPHANT TRUNK OPERATION
S. Folkmann, G. Weiss, H. Pisarik, R. Moldl, M. Gorlitzer, M. Grabenwöger
Department of Cardiac Surgery, Hospital Hietzing, Vienna, Austria

Objectives: The frozen elephant trunk (FET) procedure offers a valid treatment option for simultaneous endovascular repair of aortic pathologies in the descending aorta during conventional ascending and aortic arch replacement. However, endovascular treatment of the downstream aorta is limited when progression of the aortic disease occurs and conventional thoracoabdominal (TAAA) replacement becomes necessary.

Methods: Between 2005 and 2012, 37 patients underwent operations on the thoracoabdominal aorta in our institution. Out of this cohort, five female patients aged between 40 and 73 years (mean age: 59 years) were treated with a frozen elephant trunk procedure prior to the TAAA repair. The interval between the FET procedure and the TAAA replacement was an average 82 (19-154) days. Indication for the second operation was progression of the aortic diameter in four atherosclerotic aneurysms and in one chronic dissection up to a mean diameter of 65.6 mm. Operations were performed using the left heart bypass (LHB) technique, selective visceral blood perfusion (300 ml/min), cold renal protection and cerebrospinal fluid drainage for 72 hours.

Results: All patients survived the surgical procedure. In one patient, concomitant coronary artery bypass grafting was performed. Mean Intensive Care Unit stay was 4 (1-9) days, and mean hospital stay was 24 (17-32) days. No stroke, paraplegia, renal failure, or other major complication occurred.

Conclusions: Conventional TAAA repair following frozen elephant trunk operation is a feasible and safe procedure, which is facilitated by the fact of a proximal anastomosis with the endovascular prosthesis in the distal part of the descending aorta and a convenient possibility to clamp the endograft in the middle part of the downstream aorta.