TOTAL AORTIC ARCH REPLACEMENT WITH THE FROZEN ELEPHANT TRUNK TECHNIQUE IN ACUTE TYPE A AORTIC DISSECTION: ARE WE PUSHING THE LIMITS TOO FAR?

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Objectives: Acute aortic dissection type A (AADA) is a surgical emergency. In patients with involvement of the arch and the descending aorta (DeBakey type I), performing a total aortic arch replacement with the frozen elephant trunk technique (FET) for supposedly better long-term results is controversial. We present our results.

Methods: From January 2001 to March 2013, 47 patients with AADA received an FET procedure as a first cardiac operation at our centre (39 male, age 59.72 ± 11.7 years). Concomitant procedures were: Bentall (n = 11), replacement of ascending aorta (n = 10), and aortic valve repair (n = 25).

Results: Cardiopulmonary bypass (CPB), cross-clamp and cardiac arrest times were 260.92 ± 65.2, 161.13 ± 45.83 and 59.40 ± 24.85 min, respectively. The in-hospital mortality was 15%. Stroke and re-thoracotomy for bleeding were 12.78% and 25.54%, respectively. Postoperative recurrent nerve palsy and spinal cord injury rates were 10.64% (5/47) and 8.5% (5/47), respectively. Follow-up was 40 ± 24 months. During follow-up, no patient died or required reoperation.

Conclusions: Our experience with FET in AADA shows acceptable results. Total aortic arch replacement with an FET in AADA patients does demand high technical skills. In spite of this, we still believe FET improves long-term outcome in cases of AADA with intimal tear or re-entry in the aortic arch or the descending aorta (DeBakey type I). Modern grafts with four side branches as well as sewing collars for the distal anastomosis, have helped to further ‘simplify’ the FET implantation. Such a strategy should only be implemented in experienced centres, and only if it is absolutely necessary, and not in all AADA patients.