



# Preface

## Preface—frozen elephant trunk

Over the last decade, the frozen elephant trunk (FET) technique has replaced the conventional trunk procedure for the treatment of complex aortic arch lesions and for extensive thoraco-abdominal aortic pathologies. The visionary idea to combine open surgery with endograft technologies has established the FET procedure as the first “hybrid” treatment for aortic arch pathologies. According to many skilled surgeons, the procedure has simplified progressively and become more familiar even in challenging acute aortic dissections. The most relevant and attractive adjuncts to reduce circulatory arrest times are the possibility of performing a more proximal distal anastomosis in the arch (moving from zone 4 to zone 0) and the ability to perform an extra-anatomical rerouting of the left subclavian. Moreover, the combination of the branch-first technique and zone 2 arch anastomosis enables the procedure to be completed through a mini-access incision. Finally, new devices introduced to the market have favored the diffusion of the procedure globally.

A much appreciated aspect of the FET technique is good longer term results and staging for possible future interventions. The ability to simplify subsequent endovascular procedures, especially in cases of aortic dissections where the distal stented portion of the graft facilitates downstream aortic remodelling by inducing false lumen thrombosis and depressurization of the false lumen, stabilizes the dissecting membrane, and reduces proximal type Ia endoleaks.

There is now significant global experience and long-term follow up data available for this technique from which we are able to draw robust conclusions. In this focused edition, Tian *et al.* examine this experience in a systematic review and meta-analysis that incorporates the data from thirty-seven studies with outcomes available for 4,178 patients.

After the previous *Annals of Cardiothoracic Surgery* issue on the “innovative” FET released in 2014 we felt the need to refresh the topic, inviting some of the best known pioneers in this field to provide a comprehensive overview of the results, current state of the art, recommendations, and techniques. In addition, as in the previous issue, we have included interesting videos illustrating the most recent modifications of the technique and challenging situations.

It is our great honor to be the Guest Editors of this focused edition, and we would like to acknowledge the expert faculty for their expertise and knowledge, which has enabled us to put together this issue of *Annals of Cardiothoracic Surgery*.

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