

A modified frozen elephant trunk hybrid device to facilitate supra - aortic trunk anastomosis

"The position of the neo-vessels in the chest avoided malpositioning and kinking and facilitated sternum closure; this may improve operating times as well as allowing complete and continuous cerebral trivascular perfusion and corrects positioning of the intrathoracic vessels."

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Summary

"A modification to the standard Thoraflex Hybrid design allowed improvement in operating times, complete and continuous cerebral trivascular perfusion, and correct positioning of the intrathoracic vessels."...

"Since 2018, Thoraflex Hybrid is our FET device of choice because of the advantages of the branched plexus configuration but LSA anastomosis remains its Achilles heel. To address this, we debranch and selectively cannulate the LSA and LCA with interposition of 10/8mm Dacron prosthesis avoiding direct cannulation and optimizing bilateral cerebral perfusion (always trivascular)."

"However, it can be difficult to trim the graft length and position it in the chest often resulting in redundant or kinked branch vessels, particularly in small chests, and difficulty in closing the sternum."...

"With this device modification, the vessel lengths are more appropriate and the position of the neo-vessels in the chest avoids malpositioning and/or kinking, and facilitates sternum closure."... "HCA and operating times are shortened and probably contribute to a low incidence of major stroke even in acute dissections."¹

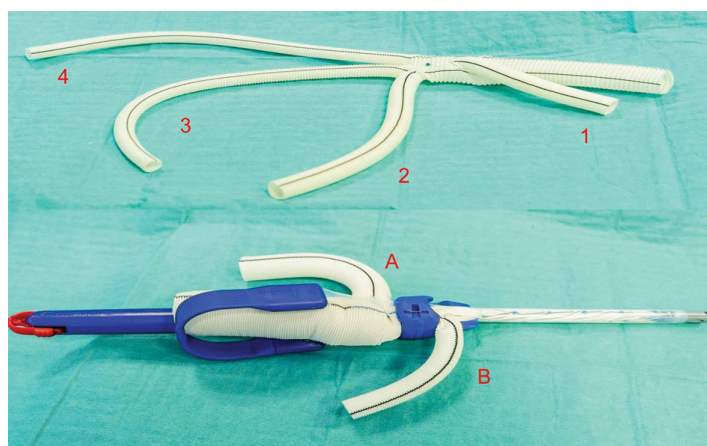


FIGURE 1. A custom-made Thoraflex Hybrid: (A) cerebral vessels branch (16 mm); (B) perfusion side branch (10 mm) and a Gelweave™ surgical graft: 1, perfusion side branch (10 mm); 2, innominate branch (10 mm); 3, left carotid branch (8 mm); 4, left subclavian branch (8 mm)

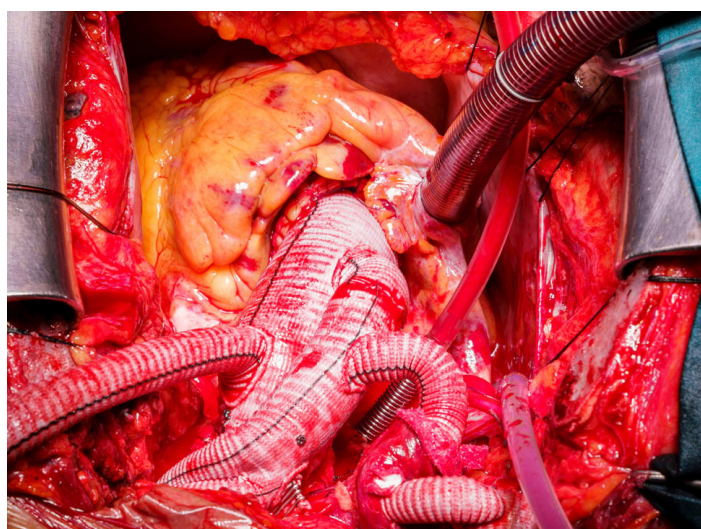


FIGURE 2. Final result showing combined surgical and hybrid implanted grafts

1. "Masiello et al. (2020) - A modified frozen elephant trunk hybrid device to facilitate supra - aortic trunk anastomosis. *Journal of Cardiac Surgery*, Volume 36, pages 371-373."

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Product availability subject to local regulatory approval. Caution: Federal Law (US) restricts this device to investigational use only. Thoraflex Hybrid is not approved in the US or Japan.

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