Hybrid repair of aortic arch aneurysms: encouraging long-term results.

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BACKGROUND Endovascular approach (EVAR) to thoracic aortic aneurysms represents a new, less-invasive and effective treatment option. The presence of the origin of cerebral vessels limits the applicability of EVAR to the aortic arch. Hybrid technique consists of a partial (carotid-to-carotid bypass) or total (brachiocephalic trunk-left common carotid-left subclavian artery to ascendant aorta bypass) surgical transposition of supra-aortic vessels (debranching) combined with stent-graft placement in the arch, and permits to extend indications of EVAR to aortic arch aneurysms. We report long-term results of our experience with hybrid repair of aortic arch aneurysms. METHODS From August 2004 to April 2008, 10 patients (8 men and 2 women) with aortic arch aneurysm were referred to our center. Median age was 71 years old (41-77 years). Median logistic Euroscore was 13,11 % (IQR 7,39%- 30,6%). All patients were treated with hybrid approach combining partial (n=) or total (n=) debranching bypass with endovascular grafting. Post-procedural follow-up included clinical examination and CT-scan with contrast enhancement at discharge, 3-months, 6-months and then yearly. RESULTS Median follow-up time was 4 years (range 2-6 years). Stent-graft placement was successful in all cases. No cases of paraplegia were recorded. No migrations of the stent-graft occurred. Endoleaks were observed in 3 patients (type I=1; type II=2), two of them developed during follow-up. One major stroke, linked to surgical complications, occurred; patient died during follow-up. No other cerebro-vascular events were reported.
CONCLUSIONS Hybrid approach to aortic arch aneurysms repair appears to be an effective and safe treatment alternative to open surgical approach, particularly in high risk patients.

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