Debranching of the arch in aortic aneurysms

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We read with interest the surgical approach of Kondoh et al. [1] for the treatment of the distal arch aneurysm. They performed the elephant trunk procedure with undersized grafts instead of using the frozen elephant trunk technique with 10–20% oversized stent grafts.

One month postoperative the residual ‘endoleak’ was 14% in Group 1, and 67% in Group 2. They performed an additional procedure in 77% of these patients. Although 92% of the patients were operated on electively, hospital mortality and cumulative mortality rates were 7.1 and 21.2%, respectively.

They performed a two-staged elephant trunk technique in patients with the descending aortic diameter ≥35 mm. In more recent procedures, they started using endovascular techniques in the second stage. The technique of catching the graft with a snare (inserted by the endovascular technique) and pulling it inferiorly is a dangerous procedure that could easily cause a rupture of the fragile aorta, or distal embolism. When compared with the above technique, the frozen elephant trunk procedure or stent graft completion after the first elephant trunk open procedure appears to be safer. Landing a stent graft within the elephant Dacron segment either as a ‘frozen’ technique or at a later time is far more efficient and leads to fewer life-threatening complications [2].

While working at the level of the diseased arch or distal ascending aorta may be technically more demanding, suturing the four-branched arch graft to the sinotubular junction will compromise any future surgical interventions to the heart. In their technique, the distance between the coronary arteries and the arch branches is not sufficient for cross clamping of the aorta in reoperation. In the debranching procedure, suturing the branched graft 3–4 cm above the sinotubular junction will facilitate effective reoperation [3].

In conclusion, it is an interesting study. We thank the authors for sharing their experience. We think it is important to effectively obliterate the full aneurysm as early as possible, rather than wait for thrombosis to occur in a delayed fashion. The elephant trunk procedure combined with the endovascular technique is a safer alternative to the catheter pulling technique described by the authors.

REFERENCES

