formed under deep hypothermic circulatory arrest even in the ascending aortic replacement. As a result, hemiarch replacement was not more invasive than ascending aortic replacement in terms of CPB time and cerebral perfusion time. In this series, we performed partial arch replacement in seven cases. If the primary tear is located in the lesser curvature of the transverse arch, the partial arch is one of good choice, in addition to hemiarch replacement. The suture line of the distal anastomosis of partial arch replacement is shorter than that of hemiarch replacement and cerebral perfusion time was similar between hemiarch and partial arch replacement (Table 2). The conclusions are limited by some characteristics of this study. These include the retrospective and uncontrolled nature of this series, that it is based on a single institution’s experience, and the small size of the patient population. Although, in this study, the extent of aortic resection and the sites of arterial return did not significantly differ in the obliteration of the false lumen of the descending aorta in comparison with ascending aortic replacement, larger cohorts might allow a statistically significant difference. Further clinical studies are needed.

References


ICVTS on-line discussion A

Title: Patency of distal false lumen in acute dissection

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eComment: The article entitled ‘Patency of distal false lumen in acute dissection: extent of resection and prognosis’ by Sakaguchi and co-workers [1] appearing in this issue of the ICVTS tends to demonstrate that the extent of aortic resection and replacement during surgery of acute type A dissection has no influence on the late patent rate of the distal aortic false lumen. The authors base their conclusion on data showing that, in patients with De Bakey type I dissection, there is no statistically significant difference in late patency of the false lumen in the descending aorta, after isolated replacement of the ascending aorta, hemi-arch or total arch replacement and that the late patency depends only on the preoperative presence of arterial hypertension and the descending aortic diameter superior to 35 mm.

The data provided seem to support the conclusion. After careful reading, though, several points of this study may be questioned.

1. One of the most critical points of the study might be the exact definition of the dissection type and the pre-operative pathologic pattern. The proportion of the various dissection types observed by the authors is somewhat surprising. Out of 124 dissections, 19 (15%) are classified De Bakey type II. In addition and strangely enough, 15 patients with the dissection ‘stopped in the transverse arch’ are classified as De Bakey type I. It seems that those should better be considered as De Bakey type II. Consequently, 34 (27%) De Bakey type II cases were observed. This is an unusually high rate as is the rate of 13% (16 cases) of retrograde acute dissections. Therefore 74 cases could be really considered as De Bakey type I and included in the study. But only 52 out of those patients had preoperatively a patent false lumen in the descending aorta. Were the 18 patients with preoperatively thrombosed false lumen actually acute dissections? Or were they intra mural haematomas? Obviously, the rate of 52 cases out of 124 patients referred for acute dissection (42%) does not correspond to what is generally observed in most reported experiences in which the rate of distal preoperative patent false lumen is generally about 75 to 85%.

2. The fact that the extent of resection was not a determining factor is most likely related to the small numbers in each group. Indeed, there is a clear tendency for false lumen patency reduction in patients who underwent arch surgery (between 50 and 60% patency rate) as compared to patients with isolated ascending aortic replacement (81% patency rate). Larger cohorts would probably allow reaching statistical significance.

3. Similarly, the fact that there was no difference between femoral cannulation and right axillary cannulation cannot be taken into account as only 7 patients out of 49 (14%) had the latter technique and 42/49 (86%) patients had a femoral artery approach. The statistical significance is, thus, rather weak. Indeed, several studies comparing both modes of cannulation have clearly shown that the use of the right axillary artery as arterial return results in a significant lower rate of late patent distal false lumen.

Some of those factors and limitations are acknowledged by the authors and addressed in their discussion. It seems however difficult to draw any conclusion and to deliver a clear message to the surgical community concerning the extent of the aortic resection, in view of the reported data. The present article contradicts the observation made in many groups, of a clear tendency towards better long term results better late rates of the false lumen late patency with the use of modern adjuncts and the larger aortic resections performed more and more frequently. In addition, it must
undoubtedly be clear that, even though the long term outcome of the patients is part of the initial strategy during emergency surgery for type A acute dissection, the primary goal is to obtain a safe and reliable repair customized to the lesions and the basic disease. Whether the distal false lumen would remain patent is an accessory consideration which can be dealt with in due time.

Reference