series, but they had a significantly lower rate of reintervention at follow-up than the extensive repair group. Unfortunately, it remains unclear whether this can be attributed to censoring with death due to nonaortic causes, to abstention from reintervention due to age/comorbidities/fragility, or to other factors.

The current series also underlines the importance of surgical experience for appropriate decision making. The border between favorable and unfavorable risk-to-benefit ratio of different surgical options may be difficult to appreciate during repair of acute type A dissection. Any operating surgeon dealing with this protean disease has had the experience of dynamically changing the operative plan when examining the root or the open arch under the constraint of limited circulatory arrest time: Often the site/extent of the entry tear and the status of the epiaortic vessels become visible only at that stage. The authors did not refrain from performing more complex operations when they believed this was in the interest of patients. Anatomical findings might demand opposite strategies than suggested by the patient's profile, and gray zone situations are common in type A dissection. Here resides the great pedagogical challenge we are facing: Teaching the surgical feeling for decision making in a rapidly evolving discipline with growing technological/technical content and a relatively low number of cases. In fact, the effectiveness of conservative approaches for most patients does not exempt operating surgeons from mastering the largest possible arsenal of solutions. We appreciate these results from an expert aortic center: Standardizing and perpetuating excellence to younger generations of surgeons may be now more challenging than ever.

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Commentary: A tailored strategy for repair of acute type A aortic dissection: Balancing risk versus benefit

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CENTRAL MESSAGE

This study underscores the safety and efficacy of a well-balanced, patient-risk-orientated operative strategy in patients with acute type A aortic dissection.

Current surgical aortic repair strategies for the treatment of acute type A aortic dissection vary in extent and technical complexity. Consequently, clinical outcomes, including operative mortality, complication rates, and reintervention rates, differ depending on the chosen repair strategy, extent of repair, and the underlying aortic pathology. The expert consensus document of the European Association for Cardio-Thoracic Surgery and the European Society for Vascular Surgery recommends performing extended procedures in the arch to prevent disease progression and to

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anticipate future endovascular modular distal extension, especially for patients with concomitant pathologies in the descending aorta.[1]

However, a look into the literature reveals conflicting data; in their meta-analysis of 2221 patients, Poon and colleagues[2] demonstrated no difference in mortality or long-term reintervention/reoperation rates between hemiarch and total arch repair (TAR). Similar results were reported by others.[3,4] On the other hand, Omura and colleagues[5] suggested that reintervention in the distal aorta might be reduced in patients after TAR, and Yamamoto and colleagues[6] reported favorable results with low operative mortality and reintervention rates using zone 0 arch repair. Conversely, others have shown higher mortality and permanent neurologic deficit rate associated with TAR.[7-9]

Lau and colleagues[10] present their more than 20-year institutional experience and report outcome data of 343 patients who underwent surgical repair for DeBakey Type I or Type II aortic dissection with special focus on the extent of repair. Clinical outcomes were compared between a conservative group (n = 240 patients) of patients who received root-sparing repair/hemiarch repair performed in most patients with advanced age and more comorbidities, and an extensive repair group (n = 103). The latter consisted of younger patients with connective tissue disease who would benefit in the long-term from a more complete aortic repair, and who underwent root replacement/arch repair. As expected, the conservative group had significantly shorter cardiopulmonary bypass, crossclamp, and circulatory arrest times. Overall operative mortality was low (5.6%) with no significant difference between the conservative and extensive repair group (7.1% vs 2.0%; $P = .101$). Although the rate of permanent neurologic deficit (3.8% vs 1.0%) did not differ between groups, the authors demonstrate a higher rate for the composite secondary end point; that is, major adverse events (eg, mortality, cerebrovascular event, dialysis, and tracheostomy) and major adverse pulmonary events (eg, prolonged intubation, reintubation, and tracheostomy) in the older and multimorbid conservative group. Both strategies resulted in comparable mid- and long-term survival rates with a 10-year survival of 63% and 66% in the conservative versus extensive repair groups, respectively. Naturally, aortic reinterventions/reoperations involved predominantly the distal aorta (93%) and were more frequently performed in the younger extensive repair group (12.8% at 5-year follow-up and 21% at 10-year follow-up) that had a higher incidence of connective tissue disease.

The patient-specific surgical approach presented by the authors resulted in favorable clinical outcomes in the conservative group with similar short- and long-term survival compared with the extensive group. This underscores the safety and efficacy of a well-balanced, patient-risk-orientated operative strategy in patients with acute type A aortic dissection.

ADULT

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