Concomitant ablation of atrial fibrillation in octogenarians: an observational study

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Background
Cardiac surgery is increasingly required in octogenarians. These patients frequently present atrial fibrillation (AF), a significant factor for stroke and premature death. During the last decade, AF ablation has become an effective procedure in cardiac surgery. Because the results of concomitant AF ablation in octogenarians undergoing cardiac surgery are still not clear, we evaluated the outcome in these patients.

Methods
Among 200 patients undergoing concomitant AF ablation (87% persistent AF), 28 patients were ≥ 80 years (82 +/- 2.4 years). The outcome was analysed by prospective follow up after 3, 6, 12 months and annually thereafter. Freedom from AF was calculated according to the Kaplan-Meier method.

Results
Octogenarians were similar to controls regarding AF duration (48 +/- 63.2 versus 63 +/- 86.3 months, n.s.) and left atrial diameter (49 +/- 6.1 versus 49 +/- 8.8 mm, n.s.), but differed in EuroSCORE (17.3 +/- 10.93 versus 7.4 +/- 7.31%, p < 0.001), prevalence of paroxysmal AF (25.0 versus 11.0%, p = 0.042) and aortic valve disease (67.8 versus 28.5%, p < 0.001). ICU stay (8 +/- 16.9 versus 4 +/- 7.2 days, p = 0.027), hospital stay (20 +/- 23.9 versus 14 +/- 30.8 days, p < 0.05), and 30-d-mortality (14.3 versus 4.6%, p = 0.046) were increased. After 12 +/- 6.1 months of follow-up (95% complete), 14 octogenarians (82%) and 101 controls (68%, n.s.) were in sinus rhythm; 59% without antiarrhythmic drugs in either group (n.s.). Sinus rhythm restoration was associated with improved NYHA functional class and renormalization of left atrial size. Cumulative freedom from AF demonstrated no difference between groups. Late mortality was higher in octogenarians (16.7 versus 6.1%, p = 0.065).

Conclusions
Sinus rhythm restoration rate and functional improvement are satisfactory in octogenarians undergoing concomitant AF ablation. Hence, despite an increased perioperative risk, this procedure should be considered even in advanced age.

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