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## Commentary: Concomitant surgical ablation of atrial fibrillation is safe in elderly patients

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### CENTRAL MESSAGE

Concomitant atrial fibrillation ablation is as effective in elderly patients as it is in younger patients. Ablation does not add morbidity and mortality and may improve early and late results.

I congratulate Petersen and colleagues<sup>1</sup> on their very important article in this issue of the *Journal*. This study describes 556 patients who underwent concomitant surgical ablation of atrial fibrillation (AF). I have to confess that I was a bit disappointed by the only 62% to 72% freedom from recurrent AF 1 year after surgery. In this group, 43.6% of patients were in paroxysmal AF before surgery. So for these patients, I would expect much better results.

Petersen and colleagues<sup>1</sup> used monopolar radiofrequency ablation in almost 60% of cases. As we know, it is difficult to achieve a reliable transmural lesion with monopolar radiofrequency devices.<sup>2</sup> Of these patients, 13.9% underwent pulmonary vein isolation only. This lesion type proved to be insufficiently effective.<sup>3</sup> I am therefore sure that with the use of proper devices and lesion set, Petersen and colleagues<sup>1</sup> could have achieved significantly better freedom from AF after ablation. Despite these drawbacks, I think that this article is very important. Petersen and colleagues<sup>1</sup> showed that AF ablation is as effective in elderly patients as in younger patients, excluding coronary artery bypass cases. They also found no ablation-related complications.

In the modern era, we operate on elderly patients more frequently than in the past. People live longer and are also interested in a good quality of life in advanced age. That is why the understanding of the results of cardiac surgery in elderly patients is so important now. Interesting information is coming from comparisons of transcatheter to surgical aortic valve replacement. The most recent, a propensity score-matched analysis of low-risk elderly patients undergoing surgical and transcatheter aortic valve replacement, demonstrated an operative mortality of 1.1% and excellent

long-term results in the surgical group. The survivals at 3 and 5 years after surgery were significantly better than with transcatheter aortic valve implantation.<sup>4</sup> Iturra and colleagues<sup>5</sup> published results of surgical aortic valve replacement in moderate risk patients. The median age was 80 years. Early mortality was 2.8%, and the stroke rate was 1.8%. We can understand from these studies that elderly patients can undergo heart surgery very safely in the modern era.

Petersen and colleagues<sup>1</sup> mentioned several important studies in the Discussion section of their article. Badhwar and coworkers,<sup>6</sup> in analysis that compared 28,739 patients with AF who received surgical ablation with patients with AF without ablation showed that the patients undergoing surgical ablation had lower early mortality and incidence of neurologic event.<sup>6</sup> Patients with AF undergoing coronary artery bypass grafting<sup>7</sup> as well as aortic valve surgery<sup>8</sup> but not undergoing concomitant AF ablation demonstrated increased morbidity and mortality relative to patients with concomitant AF ablation.

I conclude that concomitant surgical AF ablation should be performed in elderly patients. Generally, results of cardiac surgery in patients of this age are excellent in the modern era. Concomitant AF ablation does not add morbidity and mortality, and according to many studies it may improve early and late surgical results. No doubt concomitant ablation should be avoided in some difficult clinical cases; in most cases, however, the concomitant ablation must be performed in elderly patients.

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## Commentary: Concomitant atrial fibrillation ablation: The forgotten procedure

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Should we operate on elderly patients? And, if we operate on them, should we provide them with complete treatment of their disease? The answers to these 2 questions seem obvious, and we are convinced that vast majority of the cardiac surgeons would respond affirmatively to both. In reality, however, the problem of combined surgeries in the elderly is multifaceted; not only must we consider operating on an aging and perhaps fragile population, but we also have to perform complex combined procedures and achieve the same results expected in younger patients. From the perspective of surgical risk evaluation, this seems counter-intuitive, and several previous articles have reported the

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### CENTRAL MESSAGE

Is concomitant atrial fibrillation ablation a procedure that should be considered in elderly patients?

negative impact of age on the postoperative outcomes after cardiac surgery. Therefore, we should always carefully estimate the risk-benefit balance in these very delicate patients.

Regarding surgical ablation of atrial fibrillation (AF), prolonging an operation to treat a “minor” problem might be considered inappropriate in these patients. But is AF really a “minor” problem? Previous studies have clearly shown that if left untreated, AF after cardiac surgery has a negative impact on life expectancy and stroke rate.<sup>1</sup> The study of Petersen and colleagues<sup>2</sup> can certainly aid the decision of when to pursue treatment of this frequently forgotten disorder. It demonstrates that concomitant AF