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Commentary: In the beginning there was (sinus) rhythm

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**Central Message:** This nationwide population-based cohort study gives us an analytical picture of a very large Korean population undergoing any valve surgery with or without AF ablation over a 15-year time frame.

**Central Picture Legend:** Authors’ photo: Michele Di Mauro and Francesco Formica
While it is now well known that ablation of atrial fibrillation (AF) results in improved survival and reduced thromboembolic events in both the general population [1] and those undergoing valve surgery [2], the study by Kim et al [3] is of paramount importance. In fact, the largest surgical trial [2] in this field enrolled just 260 patients, reporting the results of an extremely selected cohort of patients. Recently, a Polish registry reported the results of 11,381 patients undergoing mitral valve (MV) procedures with 2449 (21.5%) having concomitant AF ablation [4]. The authors concluded that concomitant AF ablation is safe, feasible, and significantly improves late survival. However, no information about late thrombo-embolic events was provided.

Conversely, this nationwide population-based cohort study gives us an analytical picture of a very large Korean population undergoing any valve surgery with or without AF ablation over a 15-year time frame; its importance falls not only in the fact that it is a real-life mirror, but that the results clearly attest to how adding AF ablation to valve surgery significantly reduces the incidence of late thrombo-embolic events with less impact of families and healthcare system. Despite there is already enough evidence in the literature to push surgeons performing AF ablation, the prevalence of this procedure still remains highly heterogeneous from hospital to hospital and over time, as reported in the latest STS report on the subject. [5]. In 2014 in US, AF ablation ranged from 0 in MV surgery to 20% in aortic valve replacement (AVR); in 2020, the rate of AF ablation rose up to even 60% in MV surgery, but was 0 in AVR plus coronary surgery.

However, the study by Kim et al [3] is not unencumbered by limitations like most large-scale retrospective studies that rely on administrative databases. Nothing is known, for example, about the techniques used to perform AF ablation, the expertise of surgeons, the volume of centers, AF
profiles, and the type of oral anticoagulants used and patients' adherence to them.

The same authors state that because they were unaware of the rate of patients who remained in sinus rhythm after the procedure, the protective effect with regard to events such as stroke would be attributable to the closure of the auricle as already shown in a recent trial [6].

Finally, while ablation allows us to reduce the clinical impact of AF, it also creates another one, as is in fact also being discussed in the context of TAVRs, namely that of the increased rate of pacemaker implantation after the procedure.

In conclusion, however, we can say, that AF ablation is definitely a procedure that surgeons should take more attention on because if, as Hans von Bulow (famous composer) said, in the beginning there was (sinus) rhythm, it is good to return to this physiological state.
References


