More intensive anticoagulation is associated with a lower stroke risk after elective cardioversion in atrial fibrillation

Atrial fibrillation (AF) is the most common arrhythmia of the heart and elective cardioversion (ECV) is a common procedure in converting AF to normal sinus rhythm. AF carries an increased risk for stroke and a substantial portion of strokes occurs after ECVs. Although the stroke risk in AF patients can be effectively lowered with proper anticoagulation, patients undergoing ECV remain at 1.5-4.5 - fold higher risk for stroke during the postprocedural month compared to the average risk in AF.

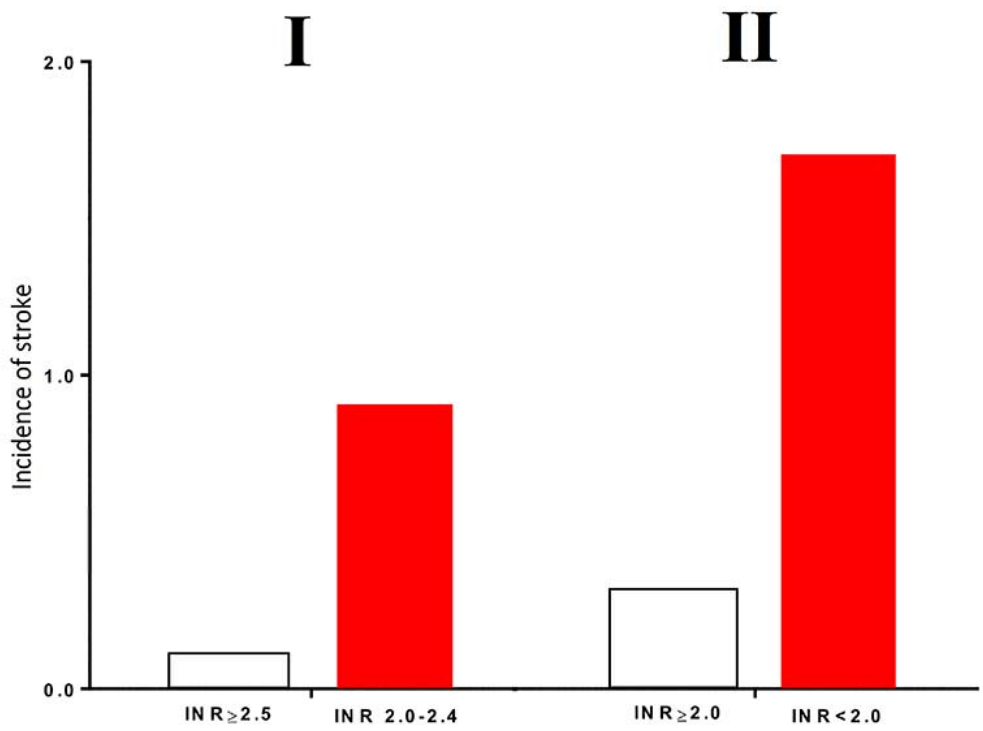

Fig. 1. Stroke rate in patients with high (≥2.5) vs. low (2.0-2.4) therapeutic INRs at elective cardioversion (ECV) (Panel I), and in patients with therapeutic (≥2.0) vs. subtherapeutic.

In the FinCV2 study we sought assess the association between intensity of warfarin anticoagulation and risk of stroke after ECV in AF patients. Altogether 1424 ECVs and 1021 patients were included in the present analysis. All patients were treated according to the guidelines with warfarin.

At 30-day follow-up after ECV, 4 (0.3%) strokes and 2 (0.1%) TIAs were detected, while no systemic emboli were observed. Median time to a stroke/TIA was 4 (IQR 9.5) days after ECV. Patients with low (2.0-2.4) therapeutic INR at ECV had a higher risk for stroke compared to patients with higher INRs at ECV (5/529 (0.9%) vs. 1/895 (0.1%), p=0.03) (Figure 1). In the patients with additional INR data, a drop in INR values to subtherapeutic (<2.0) level was detected within 21 days

after 230 (22.8%) ECVs. The risk for stroke was substantially higher in the patients with subtherapeutic INRs when compared to patients with therapeutic INRs after ECV (1.7% vs 0.3%, p=0.03) (Fig. 1). Low (2.0-2.4) therapeutic INR at ECV predicted a drop in INR to subtherapeutic (<2.0) level within 21 days after ECV.

Our findings suggest that the intensity of anticoagulation is associated with the risk of stroke and a period of more intensive anticoagulation might reduce stroke risk after ECV. Furthermore, our results underscore the importance of unwavering INR control after ECV in AF patients.

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