

Changes of oral anticoagulation in elective cardioversion - results from a European cardioversion registry

Authors:

J. Papp¹, E. Zima², R. Bover³, R. Karaliute⁴, A. Rossi⁵, C. Szymanski⁶, R. Troccoli⁷, J. Schneider⁸, M.W. Fagerland⁹, J.A. Camm¹⁰, D. Atar¹¹, ¹Medical Centre, Hungarian Defence Forces, Cardiology Department - Budapest - Hungary, ²Heart and Vascular Center, Semmelweis University - Budapest - Hungary, ³Hospital Clinic San Carlos, Cardiology Department - Madrid - Spain, ⁴Lithuanian University of Health Sciences, Institute of Cardiology - Kaunas - Lithuania, ⁵Gabriele Monasterio Foundation, Cardiothoracic Department - Pisa - Italy, ⁶University Hospital of Amiens, Cardiology Department - Amiens - France, ⁷Polyclinic Hospital of Bari, Cardiology Department - Bari - Italy, ⁸Bayer Healthcare - Berlin - Germany, ⁹Oslo University Hospital, Oslo Centre for Biostatistics and Epidemiology, Research Support Services - Oslo - Norway, ¹⁰St. Georges University of London and Imperial College - London - United Kingdom, ¹¹Oslo University Hospital, Cardiology Department B, University of Oslo - Oslo - Norway,

Topic(s):

Electrocardiography / cardioversion / defibrillation

Citation:

European Heart Journal (2016) 37 (Abstract Supplement), 236

Introduction: In patients with atrial fibrillation (AF) pharmacological or electrical cardioversion may be performed to restore sinus rhythm. The procedure is associated with an increased risk of thromboembolic events, which can be significantly reduced by adequate anticoagulation (AC).

Aim: Our aim was to create a partly prospective, partly retrospective cardioversion registry, particularly focusing on AC strategies in different European countries, and on emerging choice of AC over time.

Methods: From September 2014 to October 2015 the cardioversions due to AF performed in six European city hospitals in five European countries (Budapest – Hungary (two sites), Bari and Pisa – Italy, Amiens – France, Madrid – Spain, Kaunas – Lithuania) were recorded in the registry.

Results: A total of 1101 patients (retrospective/prospective: 679/422, male/female: 742/359, mean age: 67.3 years ± 11.2) were registered. Most of the cardioversions were electrical (97%). Oral anticoagulants were administered in 87% of the patient, the usage of novel oral anticoagulants (NOACs) vs K-vitamin antagonists (VKA) was 31.5% vs 68.5%. 77% of the patients were given oral anticoagulants more than 3 weeks before the procedure, and 86% more than 4 weeks after the procedure. When using VKA, INR at cardioversion was above 2.0 in 76% of the cases. A decline in VKA usage (p=0.033) in elective cardioversion over approximately one year was observed (Fig. 1a). During the observation period an

increase in apixaban ($p<0.001$), a slight increase in rivaroxaban ($p=0.028$) and no changes in dabigatran ($p=0.34$) usage for elective cardioversion was noticed (Fig. 1b). There were differences in use of AC between the countries: Spain used most VKA (89%), while France used least VKA (39%, $p<0.001$).

Conclusions: According to current AF guidelines NOACs are adequate alternatives to VKA for thrombembolic prevention in AF patients undergoing elective cardioversion. Our results show a significant decrease in VKA usage over time, while NOAC usage displays a gradual increase.

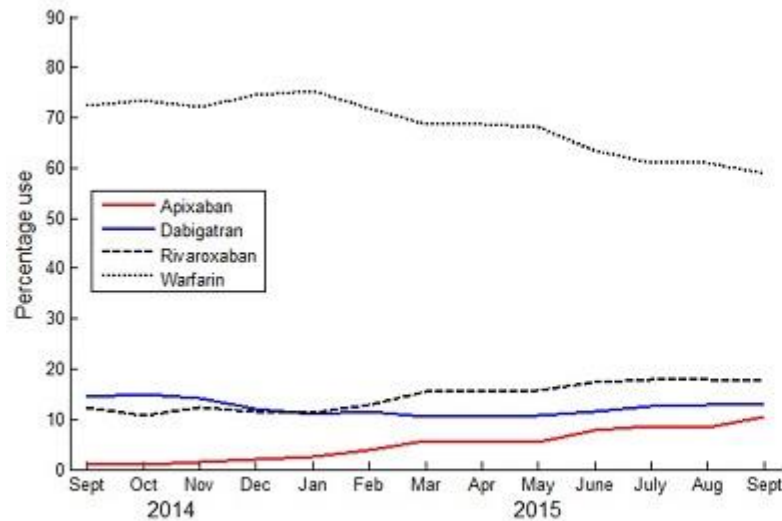


Fig. 1a

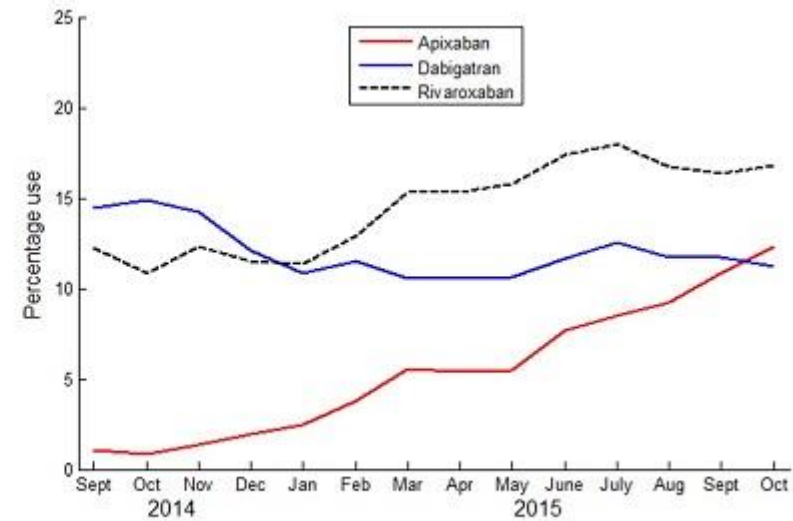


Fig. 1b