

Major risks of dual and triple antithrombotic therapy in patients with newly diagnosed atrial fibrillation

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According to Dr. Samy Suissa, Director of Clinical Epidemiology, Jewish General Hospital, and Professor of Epidemiology, McGill University in Montreal, Canada, "treating physicians need to consider the clinical effectiveness of combining different antithrombotic therapies against the likelihood of increasing the risk of serious bleeding." This new study, published in the March 2013 issue of *Thrombosis and Haemostasis*, quantified the risk of bleeding events associated with antithrombotic combination therapy in a large population-based cohort of patients newly diagnosed with atrial fibrillation. These findings suggest that while all antithrombotic therapies are associated with an elevated bleeding risk, chances are greatly increased in an additive manner with dual and triple therapy, particularly in combinations containing warfarin.

Patients with atrial fibrillation are at an increased risk of [ischemic stroke](#). In this high-risk population, vitamin K antagonists such as [warfarin](#) have been shown to be highly effective in preventing this event. However, the afflicted often receive multiple antithrombotic drugs such as warfarin in combination with aspirin and clopidogrel to manage their associated [cardiovascular conditions](#). Yet, each of these drugs is known to increase the bleeding risk, and especially intracranial hemorrhage. Moreover, intracranial hemorrhage associated with the use of warfarin is often fatal.

Nonetheless, very few population-based studies have explicitly quantified the risk associated with combined treatment to date.

Thus the primary purpose of this current research was to find out more about the association between the concurrent use of different antithrombotic drugs and the bleeding risk in patients newly diagnosed with atrial fibrillation, who seem to be at an even higher risk of bleeding than patients with chronic disease. Suissa and his team conducted a population-based cohort study, relying on the General Practice Research Database (GPRD), a primary care database from the United Kingdom, to identify patients newly diagnosed with atrial fibrillation between 1993 and 2008. Within this cohort including more than 70,000 adults (mean age: 74.1 years), 10,850 patients experienced a bleeding event during follow-up (604 of which were intracranial hemorrhages).

The risk of bleeding episodes with dual and triple antithrombotic therapy was found to be additive, and chances of bleeding events increased in particular with combinations containing warfarin. Triple therapy was associated with the highest risk: For the combined use of both aspirin and [clopidogrel](#) with warfarin, the bleeding risk was increased almost 4-fold compared with non-use. When compared with warfarin single therapy, triple therapy was associated with an 80% increased risk.

These results are clinically significant and might help to refine management of patients with [atrial fibrillation](#) who often have further conditions indicated for these drugs. In view of these findings, patients currently treated with multiple antithrombotic therapies in combination should discuss with their physician the risk-benefit profile of such combination treatment with respect to the potential additive bleeding risks.

More information: Azoulay L , Dell'Aniello S, Simon T, Renoux C , Suissa S. The concurrent use of antithrombotic therapies and the risk of

bleeding in patients with atrial fibrillation. *Thromb Haemost* 2013; 109: 431-439. nl5.sitepackage.de/link/2120_s...er.de/d0cc651ad99131

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