
Poster

[P27-4] P27-4: Cardiovascular drugs (1)

Chair: Philip David Walson, Germany

Wed. Sep 27, 2017 12:30 PM - 1:30 PM Annex Hall (1F)

(Wed. Sep 27, 2017 12:30 PM - 1:30 PM Annex Hall)

[P27-4-3] The effect of amiodarone on warfarin anticoagulation: a register-based nationwide cohort study involving the Swedish population

Johan Holm¹, Jonatan Lindh², Marine Andersson³, Buster Mannheimer⁴ (1.Karolinska Institutet, Karolinska University Hospital Huddinge, 2.Karolinska Institutet, Karolinska University Hospital Huddinge, 3.Karolinska Institutet, Karolinska University Hospital Huddinge, 4.Karolinska Institutet, Sodersjukhuset)

Keywords: amiodarone, cytochrome P-450 CYP2C9, drug interactions, international normalized ratio, warfarin

Background

The interaction between warfarin and amiodarone has previously been demonstrated to result in an increased warfarin effect. The prediction of an adequate starting dose of warfarin considering the impact of genetic and clinical factors has been studied in several large studies. Longitudinal data on the effect of introducing amiodarone in patients on an ongoing warfarin regime are scarcer.

Methods

We conducted a large retrospective cohort study on the how the anticoagulant effect and dosing of warfarin was affected by the initiation of amiodarone. Data was retrieved from three nationwide registries and 754 patients were included. Warfarin doses were compared between two 4-week periods, before and 18-21 weeks after initiating co-treatment with amiodarone. Warfarin doses and international normalized ratio (INR) values were calculated week-by-week after the initiation of amiodarone.

Results

After initiation of amiodarone the fraction of patients with an international normalized ratio (INR) over 3.0 increased from 12% to 37%, peaking during the third week of co-treatment. The fraction of patients with an INR over 4.0 increased from 0.9% to 5.5%. Mean INR increased from 2.6 to 3.1. The subsequent mean decrease in warfarin dose was 24.6% (95% confidence interval 23.5, 25.6). A marked dose reduction was seen during the first 5 to 10 weeks and after 15 weeks most patients had a new stable dose level. One and two weeks after initiation of amiodarone INR had been measured in 67% and 90% of patients respectively.

Conclusions

More than one third of patients treated with warfarin that had amiodarone treatment initiated were exposed to supratherapeutic INR values within three weeks of co-treatment. Closer INR monitoring followed by appropriate dose adjustment would reduce the risk of bleeding after initiation of warfarin and amiodarone co-treatment. An average warfarin dose reduction of 25% can be expected after initiation of amiodarone treatment.

Reference:

Holm J, Lindh JD, Andersson ML, Mannheimer B. The effect of amiodarone on warfarin anticoagulation: a register-based nationwide cohort study involving the Swedish population. *J Thromb Haemost.* 2017 Jan 6.

[Epub ahead of print]