Abstract

Introduction

Citalopram is a preferred medication used for the treatment of depression and belongs to a group known as selective serotonin reuptake inhibitors (SSRI). When used on a long-term basis, it leads to a significant decrease of serotonin in thrombocytes. Citalopram-treated patients often display haemorrhagia that is explained by its anti-platelet effect, which is also - more or less - the case for other medications from the SSRI group.

Aim of the Thesis

The aim of the thesis was to find out:

a) Whether citalopram treatment (2 weeks) has influence on the plasma concentration of thromboxane B2;

b) Whether there is a relation between the expected decrease of thromboxane B2 levels and the plasma concentration of citalopram.

Methods and Patient Population

We carried out clinical and laboratory tests on a study population consisting of elderly and polymorbid patients who underwent a 14-day citalopram treatment with daily doses of 20mg. Among other tests, we observed the plasma concentration of thromboxane and citalopram. Out of 160 patients examined, 78 patients were assessed.

Results

Our study has proved that even a short-term citalopram treatment results to a significant increase in the plasma concentration of thromboxane B2 and the suppression rate of thromboxane B2 correlates with the higher plasma concentration of citalopram. An interesting fact is that the concentration of citalopram in our population considerably exceeded the usual concentrations in younger patients taking the same dose of citalopram.

Conclusion

Citalopram treatment results in suppression of the plasma concentration of thromboxane B2 and correlates with the amount of citalopram concentrations. This effect can be evidenced after a mere 14-day treatment. The plasma concentrations of citalopram (administered in the same doses) achieved in old patients are considerably higher than in younger patients and they often exceeded the recommended interval.