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Following implantation of heart valve prostheses, patients are prescribed life-long warfarin therapy to reduce the risk of thromboembolism. In the process of determining maintenance dose of warfarin, patient's INR variation is unavoidable.
The objective of this study was to suggest a steady-state warfarin dosing guideline for Korean outpatients with prosthetic heart valves.
A retrospective chart review was completed for all patients seen by the pharmacist-run anticoagulation service(ACS) at Seoul National University Hospital from March, 1997 to September, 2000. Patients who were at least 6 months post-valve replacement, were enrolled in the outpatient ACS and had at least one INR value less than 2.0 or greater than 3.0 were included.
Six hundred eighty-eight patients (1,782 visits) whose INR values have been previously stable while adhering to the dosing regimen, without any drug or foods that interact with warfarin, were identified and required dosing adjustment in order to achieve therapeutic INR. Of these aortic valve replacement patients (AVR, target INR: 2.0~2.5) were 151 (358 visits) and mitral valve replacement or double aortic-mitral valve replacement patients (MVR/DVR, target INR: 2.3~2.8) were 537 (1,399 visits).
To suggest the guideline for warfarin dosage adjustment, mean adjusted dose and standard deviation were calculated based on the data of the INR at the time of the event. AVR patients and MVR/DVR patients were evaluated separately.
We proposed two methods for the warfarin dosage adjustment: mg-based (Guideline I) and percentage-based (Guideline II) total weekly dose (TWD) to correct moderate INR deviation. The effectiveness of Guideline I vs Guideline II was evaluated. Guideline I was superior to Guideline II overall in patients with both AVR and MVR/DVR, but there was no statistically significant difference between two guidelines for patients receiving intermediate dose (23~47 mg TWD), the most commonly used dose.

[PF1-3] [04/19/2002 (Fri) 10:00 - 13:00 / Hall E]

Factors Affecting the Nontherapeutic INRs in Korean Outpatients with Prosthetic Heart Valves

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Following implantation of heart valve prostheses, patients are prescribed life-long warfarin therapy to reduce the risk of thromboembolism. In Korean patients, maintaining a target INR of 2.0-3.0 can be challenging due to a variety of reasons. The objective of this study was to determine the causes of nontherapeutic INRs and to identify factors associated with nonadherence to warfarin therapy in Korean outpatients with prosthetic heart valves managed by a pharmacist-run anticoagulation service (ACS).
A retrospective chart review was completed for all patients seen by the ACS at Seoul National University Hospital from March, 1997 to September, 2000. Patients were at least 6 months post-valve replacement were enrolled in the outpatient ACS and had at least one INR value less than 2.0 or greater than 3.0. All possible causes of nontherapeutic INRs were documented for each patient visit. The association of gender, age, duration of ACS and length of warfarin therapy to noncompliance was investigated by univariate analysis.
Eight hundred sixty-eight outpatients were seen by the ACS and 5,304 visits were identified. The reasons for nontherapeutic INRs were identified as follows: inadequate dosage adjustment (21%), nonadherence to dosing regimen (13%), drug/herbal interactions (12%), changes in diet (7%), and indeterminate cause (42%). Younger age, shorter duration of ACS and longer duration of warfarin therapy were associated with nonadherence.
In this retrospective study, nonadherence and interactions between diet and medications were found to be important factors influencing nontherapeutic INRs. Younger age and longer duration of warfarin therapy were associated with non-adherence whereas longer duration of enrollment in the ACS was associated with increased adherence to warfarin therapy.

Poster Presentations - Field F2. Social Pharmacy

No submitted abstract in the field F2 (Social Pharmacy)