

ABSTRACT

DRUG UTILIZATION STUDY IN PATIENTS WITH PRIMARY MITRAL VALVE LESIONS

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Background: Heart valve disease is a condition in which one or more of heart valves do not work properly. Birth defects, age-related changes, infections, or other conditions can cause one or more of heart valves to not open fully or to let blood leak back into the heart chambers. In developing countries, including Indonesia, epidemiological data indicate that valvular heart disease is a major cause of all heart disease at the age of 5-30 years, also the most common cause of death in that age group.

Aims: This study documented the type of drug, drug combination, dosage and route of administration associated with clinical and laboratory data on the treatment of patients with primary mitral valve lesions, as well as to identify drug-related problems that may occur.

Method: This is an observational study, using a retrospective data collection method. The sample was taken from the period 1st January 2013-31st December 2013. The data were analyzed descriptively, including patient demographic profiles, profiles of drug use, treatment outcome and the analysis of drug-related problems.

Result: The predominant drugs are loop diuretics 100%, potassium-sparing diuretics 83%, cardiac glycosides 59.6%, anticoagulants 59.6%, ACEI 36.2%, and β -blockers 25.5%. The most prescribed drug combination is furosemide-spirolactone-digoxin-warfarin. The dosage of drugs was generally in accordance with literatures. The potential drug interactions were digoxin and furosemide (55.3%), spironolactone and ACEI (29.8%), warfarin and amiodarone (6.4%), spironolactone and ARB (4.3%), β -blockers and amiodarone (2.1%), warfarin and aspirin (2.1%), and warfarin and enoxaparin (2.1%). The actual drug interactions found were the interaction between digoxin and furosemide, where 8.5% patients had a pulse > 100x/minute and 10.6% had K^+ value < 3.5mEq/L; and the interaction between spironolactone and ACEI, where 2.1% patients had K^+ value > 5.0mEq/L.

Conclusion: The profiles of drugs used in patients with primary mitral valve lesions are in accordance with the ACC / AHA Guidelines for the Management of Patients with Valvular Heart Disease and ESC Guidelines on the Management of Valvular Heart Disease, also a few drugs have been found to have the potential and actual drug interactions.

Keyword: Drug utilization study, primary mitral valve lesions, RSUD Dr. Soetomo Surabaya