8. DRUG-DRUG INTERACTIONS IN CARDIAC PATIENTS

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Introduction. A drug interaction is a reaction between two (or more) drugs or between a drug and a portion of food, beverage, or supplement. Taking the drug while having certain medical conditions can also cause a drug interaction. Also, taking a nasal decongestant if you have high blood pressure may cause an unwanted reaction.

Aim of study. To analyze the interaction of drugs in patients with cardiovascular disease and the prevalence and types of interactions to avoid the associated risks of drug-drug interaction.

Methods and materials. The search engines for the scientific articles related to the keywords, selected 40 scientific articles out of which only 34 met the inclusion criteria in the research topic.

Results. Scientific evidence has shown that about 26% of patients with cardiovascular disease who administer at least 3 drugs reported side effects. Of these, 56.4% of patients suffered the consequences of the negative interaction of drugs in cardiology, 77.5% of patients suffered serious consequences (rhythm disorders 41.07%, hemorrhages, and blood pressure disorders (12.86%), and only 26.7% moderate consequences. Also, males are more likely to be exposed than females. Sources warn of the serious consequences of using non-steroidal anti-inflammatory drugs (acetylsalicylic acid) with antihypertensive drugs and recommend the use of low and short-term doses of treatment and their replacement with clopidogrel for long-term treatment. Concomitant use of proton pump inhibitors, clopidogrel, and grapefruit juice is also not recommended, as it inactivates the effect of clopidogrel as it blocks cytochrome 2C19. Concomitant use of beta-blockers and calcium channel blockers (verapamil) may induce sinus bradycardia and AV block.

Conclusion. The present review identified the potential drug-drug interaction and documented interactions in cardiovascular patients. Although, the potential drug-drug interaction increases as the number of concomitant medications increases. Patients with cardiovascular disorders are at high risk for drug-drug interactions because of the types and number of drugs they receive. The severity and likelihood of a given drug-drug interaction varies and depends on the pharmacokinetic and pharmacodynamic properties of the object drug and the precipitant drug.