

Potency Interaction using Simvastatin and Herbs Cholesterol Lowering Agent, Prevention of Unwanted Effect in Combination Hyperlipidemia Therapy

Authors : Agung A. Ginanjar, Lilitasari, Indra Prasetya, Rizal R. Hanif, Yusrina Rismandini, Atina Hussaana, Nurita P. Sari

Abstract : Hyperlipidemia is an increase of lipids and cholesterol in the blood that causes the formation of atherosclerosis. The recent pharmacological therapy nowadays is statin. Many Indonesian people use of medicinal plants. There are several medical plants that people always use to cure hyperlipidemia such as bulbs onion sabrang, areca nuts, and seed of fenugreek. Most people often use a combination therapy of conventional medicine and herbs to achieve the desired therapeutic effect of combination therapy. The use of combination therapy might cause the interaction of pharmacodynamic from those medicines so that it influences the pharmacological effect of one of medicine. The aim of this study is to know the interaction of simvastatin and a cholesterol-lowering herb seen in rats pharmacodynamic simvastatin phase. This research used post-test only controlled group design. Analysis of statistical data normality and homogeneity were tested by Kolmogorov Smirnov. The ANOVA test is used when the data is obtained homogeneous but if it is found that the data are not homogeneous then kruskal-wallis test is used. Normal (63.196 mg/dl), negative (70.604 mg/dl), positive (62.512 mg/dl), areca nuts (56.564 mg/dl), fenugreek seed (47.538 ,g/dl), onion sabrang (62.312 mg/dl). The results prove that the combination of herbs and simvastatin did not have a significant difference ($P>0,05$). The conclusion of this study is that the combination of simvastatin and a cholesterol-lowering herb can cause some pharmacodynamic interactions such as a synergistic effect, antagonist, and a powerful additive, so that combination therapy is not more effective than single simvastatin therapy. The use of the combination therapy is not given in the same time. It would be better if there are some period of time when the combination therapy is applied.

Keywords : onion bulb sabrang, areca nuts, seed of fenugreek, interaction medicine, hyperlipidemia

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