ABSTRACT

Effect of Storage Temperature on Organismal Contamination and Physical Stability of Ranitidine Syrup Preparations.

Ranitidine is a histamine H2 receptor antagonist which can inhibit gastric acid secretion. One of the ranitidine preparations is the situp preparation. Syrup preparations are susceptible to drug stability. Stability can be defined as the durability of a product according to certain limits during storage and use or the shelf life of a product where the product still has the same properties and characteristics as at the time of manufacture. The purpose of the research I conducted was to determine the effect of storage temperature on the physical stability of ranitidine syrup if the bottle cap is opened during consumption and to determine the effect of storage temperature on microorganism contamination of ranitidine syrup if the bottle cap is opened while consumed. Preparation and Storage Ranitidine samples were obtained from 2 pharmacies in Malang City. This research includes experimental research. The results obtained in this research, namely the organoleptic test, show that storage temperature and storage time have quite an influence on the organoleptic effect of syrup preparations during the process of opening and closing the bottle. The pH test results showed that storage temperature and storage time had no influence on the pH of the ranitidine syrup preparation during the process of opening the bottle cap. Indicated by the results of a sig value of 0.35 > 0.05. And also the sig value is 0.205 > 0.05. In the ALT test, the results show that temperature and storage time have an influence on the growth of microorganisms during the process of opening the bottle cap. This can be caused because when the packaging is opened, bacteria and viruses can enter the bottle which can cause the drug to be easily contaminated. Apart from that, the higher the temperature and the longer the storage process has an influence on bacterial growth.

Keywords: Ranitidine Syrup, storage temperature, Microorganisms, Stability