

Effect of watery and alcoholic extracts of Capparis Spinosa plant on α -amylase and bacterial activity

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Abstract: Since there is a need to obtain alternative medicines from natural sources to treat some diseases, this study was designed to investigate the effect of ethanol and aqueous extracts of the Capparis spinosa plant on bacterial activity and on the activity of amylase enzyme, and therefore perhaps used as a treatment.

In the method extracted the active substances in the biology of the leaves and fruits of this plant using two solvents, water and ethanol. There is no significant difference between the product in ethanol extraction and the extraction product in distilled water.

The biological compounds were estimated by means of the chemical reagents detection method and the optical density spectrum method under the flesh. Behind the result showed, there are many biological active compounds, and the infrared spectrum has proven that there are many effective groups returning to the compounds as there are no qualitative differences by matching the spectrum bands to the effective groups of the extracts.

The study of the biological activity of extracts against two bacteria, E-coli and S. aureus, showed that there was an effect against all bacteria and the full growth efficacy was inhibited at 100 mg /ml of extract concentration.

The effect of these extracts on inhibiting amylase enzyme has also been studied in different concentrations (25 , 12.5 , 6.25 , 3.125 , 1.5625 mg / ml). As the result showed that both the leaves and fruits have an effect on the enzyme activity, since they are all inhibited the enzyme function. This result can be useful for referring functional effect on the digestion of carbohydrates, which may be has a significant in the treatment of diabetes.