Abstract: -

This study was aimed at evaluating the effect of extraction methods on the antibacterial activity of Citrullus lanatus seed extract. C. lanatus (watermelon) is a popular fruit consumed all over the world. Three solvents were used for the extraction process: chloroform, methanol and petroleum ether while extraction conditions- and Soxhlet extraction were employed. The present study has been carried out for identification of its bioactive constituents by carbohydrate, protein, Cardiac glycosides, Terpenoids, alkaloid etc of the Citrullus lanatus a seed extract in different solvent such as Methanol, petroleum ether, and chloroform. Antibacterial activity of the seed extracts was determined by agar well diffusion method. The seed extracts were tested against clinical isolates including Escherichia coli. In the presence of Escherichia coli only the hot methanol and chloroform extracts showed significant antibacterial potentials. Also, saponins which have been implicated in antimicrobial activity were found to be present in moderate and high concentrations in the hot and methanol extracts respectively. Results of this study reveal that the kind of solvent employed as well as the conditions for extraction Soxhlet extraction influenced the efficacy of the extract against specific test organisms. Furthermore, the presence of saponins may have influence the relatively high zone of inhibition recorded with cold and hot methanol extracts against some of the test organisms.

TABLE OF CONTENT