Phytochemical screening and *in vitro* antibacterial potential of *Cassia auriculata Linn.* flowers against pathogenic bacteria

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ABSTRACT

The aim of present study is to investigate the screening of phytochemicals and to determine the antibacterial potential of Cassia auriculata flowers against five human bacterial pathogens namely Bacillus sp., Lactobacillus sp., Pseudomonas sp., Proteus sp., and Streptococcus sp. using five different solvents namely, acetone, chloroform, ethanol, methanol and water. The phytochemical analysis gave the positive result for Alkaloids, Saponin, Terpenoids, Phenols, Tannins, Flavonoids, Carbohydrates, Proteins and Amino acids. The maximum antibacterial activities were assessed with agar well diffusion method. 10, 20, 40 µl volumes of different plant extracts were used. The antibacterial activity decreased in the order of Ethanol > Methanol > Acetone > Water > Chloroform. Out of the five extracts used methanol and ethanol were found to be highly active against Bacillus sp., Lactobacillus sp., and Streptococcus sp. Moderate antibacterial potential was seen in acetone and aqueous extracts and no bacterial activity was recorded with chloroform extracts except for Proteus sp.

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