SOME PHARMACOLOGICAL AND MICROBIOLOGICAL STUDIES ON RAUWOLFIA CANESCENS

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Rauwolfia canescens which is a rich source of alkaloids is used as a substitute for R. serpentina in some countries. In folk medicine it is used in the treatment of snake bite poisoning and cardiac disorders. We have reported eleven alkaloids from this plant. The present study deals with the pharmacological and anti-microbial activity of this plant.

The polyvinylpyrrolidone coprecipitate of the crude alkaloid extracts (root, bark and leaves) of R. canescens were administered intra-peritonially (50 and 100mg/Kg) to adult male rats. Three parameters of exploratory behaviour (dips, motor, and rearing) of each rat was monitored by "rat hole board" technique. The extracts caused a significant suppression in the first two indicating a possible sedative effect. this property was more significant in the root extracts than in the leaves.

The antibacterial property of the root bark extract was studied on Syaphylococcus aureus (ATCC6538) Pseudomonas aeruginosa (ATCC9027) and Escherichia coli (ATCC8739). The "plate and well" method was used for the study. The alkaloid extracts dissolved in dimethyl sulphoxide in two concentrations (5 & 50mg/ml) were introduced into the wells which were lcm. in diameter. After 48 hrs the inhibition zones were observed and compared with the control. A marked inhibition was observed for S.aureus at both concentration levels indicating the activity against pathogenic bacteria. An inhibition was visible for E.coli at the concentration of 50mg/ml, while no inhibition occurred for P.aeruginosa.

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