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PREPARATION OF LEAF EXTRACT OF ALSTONIA SCHOLARIS AND EVALUATION OF ITS EFFICACY AGAINST CANDIDA ALBICANS

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ABSTRACT:

The use of folkloric medicine has been the tradition of Indian therapeutics since time immemorial. Alstonia scholaris has been used as a medicinal drug in different methods of traditional medicine such as Ayurveda. Alstonia is one of the most important genus of Apocynaceae family to which many pharmacological activities can be attributed. Alstonia has been used as antimalarial, anticancer, antipyretic, scholaris antibacterial. hepatoprotective, anti-diabetic, anti-tuberculosis etc. the pharmacological activity can be attributed to the rich chemical constituency of the plant. The extensive study of the biochemical constituents has shown the presence of more than four hundred different chemical compound containing alkaloids, flavonoids, saponins, tanins, triterpenoids, among alkaloids more than one hundred and eighty different alkaloids have been isolated. The extract of its bark and leaves have been extensively studied for antimicrobial activity but the focus of that study has been mainly as anti-bacterial not much work has been done to established anti-fungal activity of the plant extract. Thus this study has been done to evaluate the anti-fungal activity of leaf extract of Alstonia scholaris against the phytopathogenic fungus Candida albicans. The investigation involves use of "zone of inhibition method" for evaluation of antifungal activity. The zone of inhibition values of the leaf extract were quite comparable to values obtained with the conventional fungicide ketaconazole.

The minimum inhibitory concentration of the extract was found to be between $300\mu g/mL$ to $500\mu g/mL$. The inhibition shown by concentrations in the range of $1500~\mu g/mL$ and above was comparable to the commercially available antifungal formulation i.e. 2% ketoconazole cream.

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