Novel Natural Solution to Control Oral Disease

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Among several dental problem caries process is deadly serious and chronic too. It is an irreversible microbial disease of calcified tissues of teeth. Bacterial plaque plays the primary role in the pathogenesis of the disease. There is a continuous need of new antimicrobial components due to rapid emergence of multidrug-resistant pathogens and explosive dreadful infectious diseases. Plants are natural source of antibacterial agent. Plant –derived medicines have been a part of our traditional health care system, and the antimicrobial properties of plant derived compounds are well documented. Herbal medicines are more effective and less harmful as they have negligible side effects. In Ayurveda system of medicines Pongamia pinnata is reported to have potent activity for dental complaints. Present study deals with evaluation of the phytochemical and antimicrobial activity of fresh stem pulp, acetone, petroleum ether and aqueous extracts of Pongamia pinnata a traditional medicinal plant. Phytochemical analysis carried out revealed the presence of alkaloids, flavonoids, tannins, saponins, protein and phenol in most of the medicinal plants. The efficacy of the plant extract has been assessed by testing on oral cavity samples of patients suffering from dental carries. Antimicrobial assay was carried out using disc diffusion method. Positive and Negative control samples were also maintained. We crushed the stem, prepared pulp and extracts and checked antimicrobial activity against Streptococcus mutans, Streptococcus mitis, Streptococcus oralis, Escherichia coli, and fungi Candida albicans. Fresh stem pulp and aqueous extract of Pongamia pinnata stem was found to be effective as antimicrobial in the oral micro flora.

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