Antimicrobial Properties of ManjhTo a Bioactive Compound from Cocos nucifera

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Medicinal properties of Cocos Nucifera are well known but lesser known substance of the Coconut palm, locally called manjh are used traditionally for wound healing. It is found at the base of petioles which continues to spread out along both side of rachis. Our hypothesis is to prove its antimicrobial activity against animal tissue bruise and deep wounds. The microbiology of the sample was studied. The total heterotrophic bacterial count from the sample was found to be 1.8X108cfu/ml after 24hrs of incubation at 370C. Gram reactions of the bacterial strains were studied and most of the strains were identified as gram positive rod shaped. Antimicrobial assay with dry Crude extract of manjh showed consistent antibacterial activity. Zone of inhibition was noticed and measured. Bacterial isolates from manjh were subjected to 16S rDNA analysis and results observed. The bacterial isolates of manjh were used for a comparative study in a seeded (E.coli) plate of mac conkey using Betadine where the it showed equally good results with Betadine ointment . Local application of manjh tempts healing of wounds immediately. Tried to make a model Medicinal Plaster (Coco-heal) from manjh but further purification and isolation of active strains are required to market the item commercially. It is evident from the above experiments that the manjh contain some antibiotics which inhibit the growth of some bacteria in the vicinity. The presence of chloride, carbohydrate and protein contributes action. The study of secondary metabolites would lead to recognize the special chemical characteristics of manjh.

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