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Evaluation of Antioxidant and Antibacterial Activity of Cnidoscolus Aconitifolius

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Abstract: *The Cnidoscolus aconitifolius is commonly known as Tree spinach and it belongs to the family euphorbiaceae. Chaya possess excellent medicinal properties for the treatment of different ailments.The different parts of the Cnidoscolus aconitifolius plant including leaves, seeds, latex and fruit exhibited to have medicinal value. This research focuses on anti-oxidant and anti-bacterial activity of leaves of Cnidoscolus aconitifolius. Chaya (Cnidoscolus aconitifolius) is a domesticated leafy green vegetable of the Kerala region of India. Though relatively unknown outside of this area, evidence suggests that chaya was of significant importance to ancient peoples of the kerala and perhaps elsewhere within this region. Here we review what little research has been done on this impressive plant.*

Due to its ease of cultivation, potential productivity, and above all its substantial nutritional value, we propose chaya as a potential crop. the leaves of Chaya plant were collected from nearby region dried, powdered and extracted with ethanol. These crude extracts were tested for antibacterial activity by Well Diffusion Method the extracts found to be active were subjected to (MIC) the extracts were prepared according to the MIC and antibacterial susceptibility test was carried out using Agar well diffusion method. Extracts showed antibacterial activity against the tested strain of S, aureus. The present study showed the effectiveness of the crude plant extract against the tested bacterial strains and indicates the potential use of the extract as antimicrobial agent for the control of infectious diseases. We studied the identification of antioxidants using (DPPH) 2,2-Diphenyl-1-picrylhydrazylradical scavenging activity in Cnidoscolus aconitifolius, as Cnidoscolus aconitifolius is an important herbal plant. The 2.2- Diphenyl-1-picrylhydrazyl (DPPH) is a popular, quick, easy, and affordable approach for the measurement of antioxidant properties that includes the use of the free radicals used for assessing the potential of substances to serve as hydrogen providers or free-radical scavengers (FRS)...

Keywords: Cnidoscolus aconitifolius, DPPH assay, antibacterial activity, phytochemicals, oxidative stress, Staphylococcus aureus.

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