

Herbal remedies offer hope as the new antibiotics

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Cancer treatments often have the side effect of impairing the patient's immune system. This can result in life-threatening secondary infections from bacteria and fungi, especially since bacteria, like *Staphylococcus aureus*, are becoming multi-drug resistant (MRSA). New research published by BioMed Central's open access journal *Annals of Clinical Microbiology and Antimicrobials* investigates the potency of Indian wild plants against bacterial and fungal infections in the mouths of oral cancer patients.

Researchers from Rohtak, India, tested extracts from several plants used in traditional or [folk medicine](#) against microbials found in the mouths of oral cancer patients. Of the 40 patients involved in the study, 35 had compromised immune systems with severely reduced neutrophil counts. Eight of the plants tested were able to significantly affect the growth of organisms collected by oral swab, and pure cultures of bacteria and fungi grown in the lab. This included wild asparagus, desert date, false daisy, curry tree, castor oil plant and fenugreek.

Dr Jaya Parkash Yadav said, "Natural medicines are increasingly important in treating disease and traditional knowledge provides a starting point in the search for plant-based medicines. Importantly we found that the extraction process had a huge effect on both the specificity and efficacy of the plant extracts against microbes. Nevertheless several of the plants tested were [broad spectrum antibiotics](#) able to combat bacteria including *E. coli*, *S. aureus* and the fungi *Candida* and *Aspergillus*. Both desert date and castor oil plant were especially able

to target bacteria, such as [Pseudomonas aeruginosa](#), which are known to be difficult to treat with conventional antibiotics."

Dr Yadav continued, "Although the plants tested had a lower potency than conventional antibiotics they offer hope against resistant species. These results are a starting point for further testing in the lab and clinic."

More information: In vitro antimicrobial activity of ten medicinal plants against clinical isolates of oral cancer cases, Manju Panghal, Vivek Kaushal and Jaya Parkash Yadav, *Annals of Clinical Microbiology and Antimicrobials* (in press)

Provided by BioMed Central

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