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Antimicrobial, immunomodulatory and toxicological studies of human urine

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Urine therapy is an ancient practice referring to the applications of urine for medicinal or cosmetic purposes, including drinking one's own urine to serve as food, medicine and an immune booster that has become a field of interest in alternative medicine. Antimicrobial activities of both fresh and fermented urine against some selected clinical isolates were evaluated using the disc diffusion method. Both fermented and fresh human urine showed significant antimicrobial property with fermented urine showed a higher antimicrobial activity against *Klebsiella sp, Staphylococcus aureus, Salmonella typhi, Shigella sp, Escherichia coli, Pseudomonas aeruginosa, Proteus* sp., Rhizopus sp and Aspergillus sp when compared with fresh urine. The haematological evaluation revealed significant decrease in the total erythrocyte count, haemoglobin concentration, packed cell volume and erythrocyte sedimentation rate. However there was significant increase in the total leucocyte count during active infection. The result also indicates lowest LD50, (3.85) for S. aureus among the selected organisms as well as demonstrable ability of experimental animal to survive infection with oral treatment with urine. There was slight damage to vital organs like liver, kidney heart and intestine at higher urine concentration from the histopathological examination. The ability of urine to inhibit the growth of tested pathogenic microorganisms to justify its use in traditional medicine for treating infectious diseases.

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