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In vivo Anticandida Activity of Three Traditionally Used Medicinal Plants in East Africa

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Abstract : Crude extracts of Dracaena steudneri bark (DSB), Sapium ellipticum bark (SEB) and Capparis erythrocarpos root (CER) were investigated for their antifungal activity in immunocompromised mice infected with Candida albicans in an in vivo mice infection model. The results revealed a substantial dose dependency in all treatments given, with mice survival to the end of the experiment correlating well to the dose levels. At a dose of 400 mg/kg, C. erythrocarpos was the most effective with mice survival of 60% and organ burden clearance ranging from 64.0%-99.9% ($P<0.0001$) in all treatments. At the same dose, the least effective plant was S. ellipticum which had a mice survival of 20% and organ burden clearance ranging from 78.0%-96.6 ($P>0.05$). Mice survival for D. steudneri was 30% with organ burden clearance ranging from 89.0%-99.9% ($P<0.05$). All mice receiving no active treatment died before ten days post infection. In all treatment groups, there was a steady decline in mean weights of mice immediately after immunosuppression followed by gradual recovery in some cases which appeared to be dose dependent a few days post infection. Thus, extracts of D. steudneri and C. erythrocarpos portrayed the most significant potential as sources of antifungal drugs.
Keywords : antifungal activity, medicinal plants, candida albicans, East Africa
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