

Ethnobotany and Antimicrobial Effects of Medicinal Plants Used for the Treatment of Sexually Transmitted Infections in Lesotho

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Abstract : Lesotho, a country surrounded by South Africa has one of the highest rates of sexually transmitted infections (STI's) in the world. In fact, the country ranks third highest with respect to infections related to the human immunodeficiency virus (HIV). Despite the high prevalence of STI's, treatment has been a challenge due to limited accessibility to health facilities. An estimated 77% of the population lives in rural areas and more than 60% of the country is mountainous. Therefore, many villages remain accessible only by foot or horse-back. Thus, the Basotho (indigenous people from Lesotho) have a rich cultural heritage of plant use. The aim of this study was to determine what plant species are used for the treatment of STI's and which of these have in vitro efficacy against pathogens such as *Candida albicans*, *Gardnerella vaginalis*, *Oligella ureolytica*, and *Neisseria gonorrhoeae*. A total of 34 medicinal plants were reported by traditional practitioners for the treatment of STI's. Sixty extracts, both aqueous and organic (mixture of methanol and dichloromethane), from 24 of the recorded plant species were assessed for antimicrobial activity using the minimum inhibition concentration (MIC) micro-titre plate dilution assay. *Neisseria gonorrhoeae* (ATCC 19424) was found to be the most susceptible among the test pathogens, with the majority of the extracts (21) displaying noteworthy activity (MIC values ≤ 1 mg/ml). *Helichrysum caespititium* was found to be the most antimicrobially active species (MIC value of 0.01 mg/ml). The results of this study support, to some extent, the traditional medicinal uses of the evaluated plants for the treatment of STI's, particularly infections related to gonorrhoea.

Keywords : Africa, *Candida albicans*, *Gardnerella vaginalis*, *Neisseria gonorrhoeae*, *Oligella ureolytica*

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