عنوان مقاله:

Antimicrobial and anti-inflammatory activities of selected medicinal plants against pathogens causing sexually transmitted infections

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نویسندگان:

Ndivhuwo Patience Nthulane

Salerwe Mosebi

Thilivhali Emmanuel Tshikalange

Monde Alfred Nyila

Ledile Thabitha Mankga

خلاصه مقاله:

Introduction: Worldwide, more than one million sexually transmitted infections (STIs) are acquired daily. The diversity and frequency of sexual infections caused by pathogenic microorganisms have increased thus becoming a major cause of illness and mortality amongst young adults. Medicinal plants have been good remedies for the treatment of STIs since ancient times. In this study, we evaluated antimicrobial, anti- Human immunodeficiency virus (HIV) and anti-inflammatory activities of five selected medicinal plants. Methods: We determined the antimicrobial activities of plant extracts against the bacteria causing common STIs. Then, the anti-inflammatory activities were evaluated by measuring the inhibition of the pro-inflammatory enzyme, ۱۵-lipoxygenase (۱۵-LOX) and we further investigated the plants extracts of anti-HIV activities against the recombinant HIV-۱ enzyme, reverse transcriptase. Results: Methanol extract of Terminalia sericea and dichloromethane (DCM) extract of Bidens pilosa exhibited good activities against Neisseria gonorrhoeae and Gardnerella vaginalis. Ethyl acetate, dichloromethane and methanol extracts of Bidens pilosa exhibited good activities against Candida albicans. Ethyl acetate extract of K. africana and methanol extract of B. pilosa showed good anti-inflammatory activities. Ethyl acetate, DCM and methanol extracts of T. sericea exhibited promising anti-HIV-۱ activities by inhibiting the reverse transcriptase whilst methanol extracts of T. dregeana showed low anti-HIV-۱ activity. Conclusion: These plants showed promising activity against the propagation of inflammation, displayed good antimicrobial activities against the bacteria causing STIs and could be used as potential leads and/or source for new drug candidates.

کلمات کلیدی: