ABSTRACT

The aim of this study was to isolate fungal endophytes from medicinal plant Warburgia ugandensis and determine antimicrobial activity of their metabolites on three human pathogens; (Candida albicans 90018, E coli 25922 and Staphylococcus aureus 29213). Seventeen (17) endophytic fungi were isolated and identified as; Nigrospora oryzae, Aspergillus flavus, Cladosporium sp. (2), Fusarium Oxysporum, Phomopsis sp.(2), Colletotrichum acutatum, Altanaria sp. (2), Cochliobolus sativus, Bionectria ochroleuca, Phyllosticta gardeniicola, Guignardia mangiferae, Tricharina gilva, Diaporthe amygdali and Trichoderma harzianum. Phytochemical screening of their metabolites showed absence of phenols and alkaloids; presence of saponins, tannins, alkaloids, flavonoids, sterols and glycosides in most of the extracts. Most of the fungal endophytes didn't seem to have active metabolites after screening for presence of antimicrobial activities. Extracts from Phomopsis mali, Alternaria alternata and Fusarium oxysporum had minimum antimicrobial activity. The study showed that fungal endophytes can be a potential source of metabolites which can be useful in pharmaceutical industry.

Key words: Fungal endophytes, Warburgia ugandensis, phytochemicals, active metabolites, antimicrobial activity