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METABOLITES OF ENDOPHYTIC FUNGI ASSOCIATED WITH *Syzygium aromaticum*

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Plant endophytic fungi are an important source of renewable and environmentally friendly novel bioactive compounds. Hence, the present study investigated the chemistry of endophytic fungi isolated from leaves of *Syzygium aromaticum* L. (Myrtaceae), commonly known as cloves, a popular condiment plant used in indigenous medicine in Sri Lanka. They are commercially used for many medicinal purposes and in the perfume industry. In addition, clove is considered as one of the spices that can be potentially used as preservatives in many foods to replace chemical preservatives due to their antioxidant and antimicrobial properties. Fresh leaves of *S. aromaticum* were collected from the Central Province of Sri Lanka. Small segments (5 mm × 5 mm) of triple sterilised leaves were placed on Potato Dextrose Agar (PDA) and kept for incubation at room temperature (27 °C) for five to seven days in the dark until the appearance of fungal mycelium. The emerging fungus was subcultured to obtain pure cultures. Molecular identification of the isolated endophytic fungus is in progress. The pure fungal culture was inoculated into Potato Dextrose Broth (PDB), which was kept for 21 days with shaking at room temperature. The medium was filtered after 21 days, and the filtrate was partitioned with EtOAc (1:1). The residual mycelium was crushed and extracted with EtOAc. Both EtOAc extracts were combined based on the similarity of TLC. The chromatographic separation (silica gel column followed by Sephadex LH-20 and PTLC) of EtOAc extract resulted in campyrone C (1), campyrone A (2), campyrone B (3), pyrophen (4), 6-(1-hydroxy-2-methylbutyl)-4-methoxy-2*H*-pyran-2-one (5), carbonarone A (6), dianhydroaurasperone C (7), fonsecinone D (8) and asperpyrone A (9). Therefore, endophytic fungi can be a promising source for isolating bioactive compounds beneficial for agriculture, industry and medicine.

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Keywords: Condiment plants, Endophytic fungi, *Syzygium aromaticum*