

THE POTENTIAL OF GARCINIA ATROVIRIDIS AS THERAPEUTIC AGENTS

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G*arcinia atroviridis* locally known as *asam gelugor* in Malaysia can be found wild in the forest of peninsular Malaysia. Traditionally, *G. atroviridis* has been used as a postpartum medication agent to treat earache, throat irritation, cough, dandruff and stomach ache. The essential oils from different plant parts of *G. atroviridis*, viz., fruit, stem bark and leaf were obtained by hydrodistillation. Analysis by gas chromatography and gas chromatography-mass spectrometry revealed the presence of sesquiterpenoids in the fruit and leaf oils while fatty acids was predominated in the stem bark oil. *In vitro* MTT assay on human breast cancer cells showed that the leaf oil induced anti-proliferative effects in a dose- and time-dependent manner. In a combination treatment with tamoxifen, the leaf oil induced more cell death than the treatment using the drug alone. Thus, there is a need to further explore *G. atroviridis* essential oils as this may lead to the discovery of potential chemotherapeutic agents.

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