

Cytotoxicity of Some Sri Lankan Seaweed Extracts

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Algae are known to produce a large number of secondary metabolites with a variety of biological activities. Methanol extracts of 24 seaweeds collected around Sri Lanka were subjected to antibacterial, antifungal and cytotoxicity studies. Although, none of them were active against the tested bacteria and fungi, some showed cytotoxic activity evidenced the brine shrimp lethality bioassay. Out of the 24 species, nine species (*Halimeda discoidea*, *Sargassum* spp., *Dictyota* spp.-1, *Dictyota* spp.-2, *Amphiroa anceps*, *Amphiroa fragilissima*, *Cheilosporum acutilobum*, *Galaxaura lapidescens*, and *Tricleocarpa fragilis*) showed LC50 value below 1000 gg/ml. Many red algae caused brine shrimp death compared to the brown and green algae tested. Of the eight brown seaweeds, 3 showed LC50 value below 1000 gg/ml, whereas only one of the six green seaweeds tested was effective. The highest activity was recorded in methanol extract of *Halimeda discoidea* (LC50 0.05 ug ml⁻¹) compared to the other seaweeds. Further, four species caused brine shrimp death below the level of positive control, 4-hydroxy-2methylquinoline (30.15 μ g ml⁻¹). These preliminary results suggest that the seaweeds could be exploited for the isolation of antitumor compounds.

Key words: Seaweeds, Cytotoxicity, Antitumor compounds