Abstract

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## Antibacterial and antioxidant activities of the red algae *Hypnea charoides* from coasts of Chabahar

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Background and objectives: Marine macro algae are one of the most economically important resources of the oceans which contain important biologically active secondary metabolites. So they can be widely used in various applications. Due to the limited research work on the bioactive metabolites from Iranian algae, the red seaweed, Hypnea charoides, collected from intertidal coasts of Chabahar was selected for the present study. Methods: The algae sample was dried in shade and then powdered. Methanol was used for extraction. Antibacterial activity of the algae was determined by serial dilution method in 96 well plate and finally minimum inhibitory concentration (MIC) of the extract was evaluated against three bacteria. Cefixime was used as the standard antibiotic. The free radical scavenging activity of the methanol extract was measured by DPPH assay with BHT as the positive control. Results: MIC values of the extract for three bacteria (Staphylococcus aureus, Escherichia and Pseudomonas aeruginosa) were 64 mg/mL and values for Cefixime was 8 μg/mL, 16 μg/mL and 128 μg/mL, respectively. IC<sub>50</sub> of DPPH for sample and the standard were determined as 6.24 mg/mL and 0.16 mg/mL, respectively. Conclusion: According to the presence of biological active compounds in the selected algae, it seems that further studies can lead compounds of pharmaceutical importance.

**Keywords:** antibacterial activity, antioxidant activity, *Hypnea charoides* 

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