Título: Isolation and extraction of metabolites from Marine Algae fungi found in the beach of Recife-PE

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Resumo:

The marine environment corresponds to 95 of the biosphere and is home to a high variety of producers of bioactive compounds, unique and diverse. Fungi found in the marine environment produce secondary metabolites that can be used in the pharmacological industry, cosmetics, nutritional supplements, among others. Fungi have been used in the area of biotechnology study due to the production of enzymes and secondary metabolites. The mean of the study were isolate and obtain metabolites of marine fungus. For isolation and extraction of metabolites from marine fungi were used Macro Algae belonging to the Group of Rodophyta, Brown algae and Chlorophyta and these were collecting on the beach of Boa Viagem, Recife-PE. The algae were processed for removal of sand with washing with sterile seawater. Then the algae were fragmented and plated in the culture medium MEA (malt Extract agar) containing the antibiotic chloramphenicol (0.05%), medium Tubaki both prepared with seawater. The plates containing the fragments were incubated at room temperature for 8-15 days. After fungal growth and morphological identification of genera, were produced metabolites in glucose broth medium and broth YES 20 days. Extractions were performed with the liquid yeast cultures metabolic, separating it from the mycelium by filtration on sterile filter paper and then extracting the mycelium of each fungus macerated with chloroform and methanol separately by 24h with 4^{o}C. After incubation, all samples were filtered and rotaevapored and methanol and chloroform extracts suspends in DMSO to be stored and tested. Were obtained at the end 15 fungal isolates belonging to the genera *Aspergillus, Penicillium, Curvularia* and *Fusarium,* and yeasts. Metabolic liquids of each fungus was stored at 4^{o}C. The Mycelial mass obtained of each fungus, after processing and extraction with solvents, generated samples containing a few milligrams of metabolites whose extracts were stored at room temperature in a desiccator for dissolution in DMSO before carrying out the test of antimicrobial activity against pathogenic bacteria to humans and biocontrol effect test of fitonematoides parasites of yams and sugar cane. The extraction of metabolites of marine fungus was held successfully in only one stage of incubation with the solvents methanol and chloroform.

Key words: fungi, algae, sea metabolites extraction.