

TITLE: ANTIFUNGAL ACTIVITY OF THE AQUEOUS EXTRACT OF *Allium sativum* FACE TO PATHOGENIC FUNGI SOIL ISOLATED IN PUBLIC SQUARES MACEIÓ,AL

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ABSTRACT:

The *Allium sativum*, more known as garlic, has great medicinal importance because it has many therapeutic components which one of them is its fungicidal capacity. The soil is one of the main reservoirs of microorganisms for being a habitat that offers a propitious environment for microbial development. Studies on the occurrence of environmental fungi, usually considered opportunistic and contaminating, are important for the prevention and treatment of pathologies that affect man, animals and plants. And it may also allow advances in the diagnosis and development of new methods of approach in these pathologies. The present study aimed to test in vitro the antifungal potential of aqueous extract of *Allium sativum* against pathogenic fungi obtained from soils of public recreation areas of Maceio, AL. The collection of soil samples were taken in the respective public squares: praça Sinimbú (PS), praça Dom Pedro II (PD) and praça Centenário (PC). In total, 30 samples were collected and then conditioned, transported and processed in the Microbiology laboratory UNIT. At the end were obtained 256 Colony Forming Units (CFU), where 100.0% of the isolates were filamentous fungi. Within these, 110 (42.9%) were *Aspergillus* spp., 52 (20.3%), *Mycelia sterilia*, 28 (10.9%) *Penicillium* spp., 24 (9.3%) *Beauveria bassiana*, 24 (9.3%) *Aspergillus niger*, 10 (3.9%) *Acremonium* spp. and eight (3.1%) of *Absidia* spp. Regarding the susceptibility tests for garlic extract, the fungi that presented inhibitory action were: *Beauveria bassiana* with 30mm inhibition halo, *Aspergillus* spp. with 15mm and *Penicillium* spp. with 10mm. Therefore, it is plausible to verify that there is a possibility for isolation of pathogenic fungi in soil samples and the extract of garlic presents an antifungal potential, proving to be effective concerning the inhibition of fungal growth.

KEY WORDS: Fungi. Soil. Garlic. Antifungal.