Título: POTENCIALLY PATHOGENIC FUNGI ISOLATED FROM EXCRETA OF URBAN PIGEONS IN MACEIO, AL, BRAZIL

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Resumo:

The close proximity of urban pigeons (*Columba livia*) to human beings favors the spread of opportunistic fungi associated to their dry excreta, which may lead to infections after direct inhalation of viable propagules. The presence of potentially pathogenic fungi in the feces of urban pigeons in Maceió, Alagoas, has not been studied comprehensively to date, therefore, we collected feces from 10 localities with high flow of people and commerce. Two grams of each sample were homogenized into 20 mL saline with chloramphenicol (0.2g/L), vortexed for 5 minutes and left to stand for at least 30 minutes. Aliquots of 0.1 mL of the supernatant were seeded in triplicate Petri dishes containing Sabouraud agar and incubated at 30°C for up to five days with daily observation of macromorphology, whereas the micromorphology visualization was by microscopy after microcultive. *Cryptococcus* was identified by capsule production, urease test and phenoloxidase activity, whereas *Candida* spp. after growth in HiChrome® *Candida* Differential Agar (Himedia). Of the total fungi isolated, 65.5% were filamentous and 34.5% were yeast samples. In 57 colonies, the following growth of filamentous fungi was observed: Mycelia Sterilia (21%), *Aspergillus* and *Paecilomyces* (14% each), followed by *Penicillium* (8,7%), *Geotrichum* (8,7%), *Colletotrichum* (7%), *Trichoderma* (5,2%), *Scedosporium* (5,2%), *Rhizoctonia* (3,5%) and *Fusarium* (3,5%). *Absidia*, *Cladosporium*, *Mucor*, *Neurospora* e *Syncephalastrum* were less frequent, with 1.7% each. The following yeast genera were observed: *Candida* (66.6%), *Cryptococcus* (23.3%) and *Rhodotorula* (10%). Moreover, the most common *Candida* species were: *C. glabrata* (45%), *C. albicans* (10%) and *C. krusei* (10%) and less frequent, *C. tropicalis* (5%). In general, these fungi are saprobes and with low virulence, but they may emerge as opportunistic pathogens in immunosuppressed patients, causing sinusitis, fungemia, endocarditis, lung and brain infections. Furthermore, the presence of potentially pathogenic fungi in the analyzed material reinforces the need to apply preventive measures such as the control of the population of the pigeon, as well as the removal of the excreta in places with public circulation, to minimize the risk of exposure to fungal structures.

Palavras-chaves: Fungal microbiota, opportunistic fungi, pigeon excreta

Agência Fomento: FAPEAL, CNPq, MS