

**TITLE:** ISOLATION OF *CRYPTOCOCCUS* SPP. OF *COLUMBA LIVIA* IN HOSPITALS, SCHOOLS, SQUARES, CHURCHES AND OLD BUILDINGS IN THE CITY OF SALVADOR, BA.

**AUTHORS:** BRITO, R.L.<sup>1</sup>; SANTOS, A.C.S.<sup>2</sup>; SANTOS, L.J.<sup>2</sup>; FRANKE, C.R.<sup>1</sup>; BARROS, T.F.<sup>2</sup>

**INSTITUTION:** <sup>1</sup>.PÓS-GRADUAÇÃO EM CIÊNCIA ANIMAL NOS TRÓPICOS -UFBA;<sup>2</sup>. PROGRAMA DE PÓS-GRADUAÇÃO EM FARMÁCIA. FEDERAL UNIVERSITY OF BAHIA (RUA BARÃO DE JEREMOABO, S/N, CAMPUS UNIVERSITÁRIO DE ONDINA, CEP 40170-115, SALVADOR - BA, BRAZIL.

**ABSTRACT:**

*Columba livia* is a bird widely adapted to the urban environment and human conviviality, and this proximity represents a risk to human health that has not yet been adequately elucidated, especially in relation to the presence of pigeons, populating hospital and school facilities, interacting with patients and children, respectively. The study of the possible impact to human health as a result of living with these birds in hospitals and schools is of great importance given the susceptible condition of both patients and children to various opportunistic diseases. The objective of this study was to characterize the *Cryptococcus* species associated with pigeons and external and internal environments of hospitals and public schools, in the city of Salvador, state of Bahia, Brazil, as well as to characterize their antifungal sensitivity profile. Samples were collected from pigeons (cloaca, paw, stool) present in hospitals, schools, churches, old buildings and squares, as well as samples of dust from the interior of enclosures and detritus of trees. *Cryptococcus* were isolated and identified biochemically and then the sensitivity to antifungals and sanitizers used in hospitals was evaluated according to the protocol (M44) of the Clinical & Laboratory Standards Institute (CLSI, 2009). The percentage of positivity for *Cryptococcus* was 14% (119/851) of the samples, and nine samples were isolated from two different species. The frequency of *C. albidus* was 72.3% (99/137), *C. laurentii* in 17.5% (24/137) and *C. neoformans* in 10.2% (14/137). All isolates showed 100% sensitivity to amphotericin B. 98% to ketoconazole, 53% to itraconazole and only 35% to fluconazole. In the case of sanitizers, no isolate showed sensitivity to alcohol and hypochlorite, but some were sensitive to two types of detergent and an ammonium quaternary disinfectant. These findings emphasize the epidemiological importance of the *Columba livia* species for public health and the need for studies that elucidate the pathogen diversity associated with this bird and for the formulation of measures to control its populations, especially in hospital areas.

**Keywords:** *Cryptococcus*, hospital, school, sanitizers, antifungals.

**Development Agency:** Secretaria de Saúde do Estado da Bahia.