DUST MITES IN BRAZIL: CULTIVATION, MOLECULAR IDENTIFICATION, AND CHARACTERIZATION OF *B. TROPICALIS* AND *G. MALAYSIENSIS*

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Introduction: Asthma and rhinitis are among the most prevalent respiratory allergies, primarily triggered by exposure to house dust mites. The most common mite species associated with these allergies include *Blomia tropicalis*, *Dermatophagoides farinae*, *Dermatophagoides pteronyssinus*, and *Glycycometus malaysiensis*, all recognized for their significant allergenic potential. Objectives:To identify and cultivate mites from the genera *Dermatophagoides* and *Glycycometus*. House dust mite extracts are essential for allergy diagnosis, treatment, and scientific research. Therefore, ensuring the quality of these extracts is crucial, as variability in their composition can compromise the diagnosis and treatment of allergic patients. Materials and Methods: House dust mites were collected from household dust samples in Salvador, Brazil. The dust was enriched with spirulina and yeast as nutrient sources and then cultured under controlled temperature and humidity conditions. After the cultivation period, DNA was extracted using the NucleoSpin® DNA Insect kit (MN), and molecular identification was performed using a PCR assay based on ribosomal DNA (rDNA) sequences ITS1 and ITS2. These sequences are located in conserved genes, allowing species identification. The resulting PCR products were analyzed by electrophoresis on a 1% agarose gel. Additionally, protein extracts were prepared and analyzed using SDS-PAGE gel electrophoresis. Results: Molecular analysis of the dust samples confirmed the presence of mites from the species *B. tropicalis* and *G. malaysiensis*. These mites were isolated and cultivated in pure cultures. After culture expansion, protein extracts of *B. tropicalis* and *G. malaysiensis* were produced and subsequently evaluated alongside *D. pteronyssinus* extracts (Stallergenes Greer) using a 12% SDS-PAGE gel. Differences in protein profiles among the three mite species were observed. The species *B. tropicalis* and *G. malaysiensis* exhibited a high degree of similarity in their protein profiles, whereas *D. pteronyssinus* showed significant differences compared to the other studied species. Conclusion: It was possible to cultivate and identify the mites *B. tropicalis* and *G. malaysiensis*. Additionally, protein extracts from these species were successfully produced and characterized.

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