

## ***In vitro* evaluation of *Sporothrix brasiliensis* biotherapic**

**Amanda Ribeiro Ricardo Brito<sup>1</sup>, Lais Cavalcanti dos Santos Velasco de Souza<sup>2</sup>, Andrea Regina de Souza Baptista<sup>2</sup>, Gleyce Moreno Barbosa<sup>3</sup>**

<sup>1</sup>Pharmacy Student, Federal Fluminense University; amandabrito@id.uff.br

<sup>2</sup>Investigation of Microorganism Center, Federal Fluminense University

<sup>3</sup>Pharmacy Faculty, Federal Fluminense University; gleycemorenobarbosa@id.uff.br

**Background:** *Sporothrix brasiliensis* is one of the most virulent zoonosis which affects animals and humans. This fungus is responsible for subcutaneous infection and its contamination is possible through trauma to the skin. Sporotrichosis is highly prevalent in feline. And Rio de Janeiro appears to have the highest occurrence of cases. **Objectives:** This study aims to evaluate the *in vitro* efficacy of *Sporothrix brasiliensis* biotherapic, with and without an association to allopathic medicine commonly used in the treatment. **Methodology:** Conidium cells of *Sporothrix brasiliensis* will be cultured in Potato dextrose agar (PDA) for 5 to 7 days and yeast cells in Brain heart infusion (BHI) for 3 to 5 days. After incubation, the cells will be scraped with drigalski handle and filtered using cells strainer into a tube and centrifuge for 5 minutes at 3000 RPM. The cells will be resuspended with Phosphate buffered saline (PBS), centrifuge again and finally resuspended in PBS. After preparing the inocule, the microplates will be prepared. There will be 5 groups *in vitro*. The first one will be the control group, only fungi. The second will be the treatment of fungi with homeopathic medicine (*Sporothrix brasiliensis* 30DH). The third group will be the homeopathic medicine in association with itraconazole. The fourth will be the treatment with itraconazole only. And the last group will be the fungi with dynamized distilled water 30DH. *Sporothrix brasiliensis* 30DH will be prepared according to Brazilian Homeopathic Pharmacopeia. **Results and discussions:** The experiments are still in progress and the results will be analyzed through Analysis of variance (ANOVA) to determine statistically significant differences. Previous articles based on biotherapic treatments demonstrated successful results, so our research group is conducting these experiments to evaluate the effect in this model. **Conclusion:** Experiments will be made to verify the efficacy of biotherapic on sporotrichosis treatments.

**Keywords:** *Sporothrix brasiliensis*, biotherapic, *in vitro*.