

***In vitro* Control of Oral Pathogens by Extracts of Endophytic Fungi from Amazon Plants**

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The oral microbial pathogens are the main concern of dentistry today. The greatest cause of failure of endodontic treatment (root canal treatment) is the resistance of microorganisms to drugs even after cleaning and disinfection of the root canal system. Therefore this research aimed to select among 63 crude extracts from endophytic fungi, isolated from plants such as *Victoria amazonica*, *Rollinia* sp. and *Duguetia stelechantha*, those with potential antibiotics against standard strains of *Staphylococcus aureus*, *Streptococcus mutans*, *Pseudomonas aeruginosa*, *Enterococcus faecalis* and *Candida albicans*, natural oral pathogens, commonly found in cases of endodontic failure. Among the 66 extracts evaluated, obtained from either fermented liquid or mycelium, nine had shown some type of antibiosis, two for *S. aureus*, six for *S. mutans*, two for *P. aeruginosa* and two for *E. faecalis*. One single extract showed activities against *P. aeruginosa* and *S. mutans*, with halos ranging between 12 and 18mm diameter. None extract showed activity against *Candida albicans*. The best result was found to the fermented liquid extract from the Vrc2 2.2 strain, isolated from *V. amazonica*, with average of 18mm in diameter. Fungi are identified by morphology and by sequencing of the ITS-1 and ITS-4 region. These results indicate that the biodiversity of endophytic fungi of the Brazilian Amazon may be natural source of new antibiotics that can be used in medicine and dentistry for the control of human microbial pathogens.

Key-words: Endonphytic fungi, oral pathogens, antibiosis and Amazon plants.

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