TITLE: INHIBITORY EFFECTS OF QUERCETINA AGAINST BACTERIAN AND FUNGI AGENTS.

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ABSTRACT:

The Quercetina is a natural flavonoid polyphenolic antioxidant, that is been find in plants, fruits e vegetables. It contains the anti-inflammatory, anticarcinogenic, immunomodulator, antiviral and antimicrobial properties, it is an aglucone that has a form of a yellow-gold powder. (Dry extract 95%). For being generally in the form of food, it has a frequently component in the human diet. In the current context where there is antibacterial activity it is caused by many factors, as the resistance to antibiotics, flavonoids are used as herbal medicines and food supplements. Therefore, the main subject of this work was to investigate the effects of Quercetina in bacteria grans negatives, positives and in diploid fungi. The dry extract was diluted in Dimetilsulfóxido (DMSO) and evaluated as its antimicrobial activity through disc diffusion realized three times using *Enterococcus faecalis* (ATCC® 29212), *Staphylococcus aureus* (ATCC® 25923), *Escherichia coli* (ATCC® 11229) e *Candida albicans* (ATCC® 10231) strains, on BDA (Batata dextrose Ágar) growing medium for 24 hours at 37º C degrees and transferred to the salt solution (NaCl 0,9%; p/v) until it muddies up to 0,5 in MacFarland scale. Each one of the microorganisms tested were spread in plates of Petri containing the growing medium, the paper discs were wet with 10 μL of the extract from Quercetina and other two, wet whit Dimetilsulfóxido (negative control) and for the positive control was used 50μg/mL from ampicillin, were kept on freeze (4 ºC degrees), for 8 hours. After that period, they were transferred to a BOD greenhouse at 37 °C degrees, for 24 hours, for visualize the inhibition halos witch ones has the results of the diameter (in centimeters). The biotests was realized three times. The extract was considered enough against the diploid fungi *Candida albicans* showing halos between 1,6 and 3,8 cm, on bacteria it couldn't have any positive result. Fungus *Candida albicans* affects around 80% of the population that exists under normal circumstances in humans but its excess results infection (candidiasis) therefore it is necessary the development of new ways to treat infectious diseases, focus on the use of natural products with antimicrobial effect against the growing number of bacteria and fungi resistance in medicine.

Keywords: Quercetina, flavonoid, antimicrobial, fungi.

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