Título: ANTIMICROBIAL ACTIVITY OF *Ocotea pulchella* EXTRACT (Nees & Mart.) Mez TO CONTROL POULTRY PATHOGENIC MICROORGANISMS

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Resumo:

In recent years Brazil has become a leader of import and poultry meat. Having an important role in the food industry, the poultry industry has been extensively studied, mainly to food security and prevention, trying to take all sanitary measures to avoid contagion or contamination of pathogenic microorganisms for birds and humans. From this perspective, this study purpose was evaluate the antimicrobial activity of the plant *Ocotea pulchella* ethyl acetate extract front *Salmonella* Enteretidis (ATCC 13076), *Salmonella* Gallinarum (ATCC 1138), *Salmonella* Heidelberg (ATCC 8326) and *Salmonella* Typhimurium (ATCC 14028) strains. To obtain the extract, *O. pulchella* leaves were dried at 40° C for 72 hours and ground in a slicer to obtain powder. Therefore leaves powder was added to the solvent ethyl acetate P.A. 1:10 (w/v), Then it was placed on a rotate shaker for 24 hours. Finally, the mix was sterilized by vacuum filtration, centrifuged at 5000 rpm (revolutions per minute) for 15 minutes and roto-evaporated to remove completely the ethyl acetate. The extract was assessed by the Broth Microdilution Test that allows to determine the Minimum Inhibitory Concentration (MIC) and Minimum Bactericidal Concentration (MBC). Since a serial dilution, the concentrations tested were 200 mg of extract / mL to 3.12 mg/mL. To facilitate the results visualization was used triphenyltetrazolium chloride (TTC) at 0.5%. In the bacterial metabolism presence, TTC changes the medium coloration, becoming it red. It was observed in experiments that *S.* Typhimurium and *S.* Gallinarum strains obtained the values of MIC and MBC was 25 mg/mL and 200 mg/mL, respectively. The *S.* Heidelberg strain presented 12.5 mg/mL of MIC and MBC 50 mg/mL and the *S.* Enteretidis strain showed the best result, with MIC of 6.25 mg/mL and MBC 50 mg/mL. Therefore, it is concluded that all the tests with *Salmonella* was no inhibition of bacterial growth and bactericidal effect, suggesting the ethyl acetate extract use of *O. pulchella* leaves as alternative products to control these pathogens in poultry.

Palavras-chave: antimicrobial activity, Salmonella spp., alternative product.

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