Antibacterial and antifungal activity of *Acca sellowiana*

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**Introduction:** *Acca sellowiana* (Berg) Burret (Myrtaceae), known as pineapple guava, is a native plant from the southern plateau of Brazil (Degenhardt, Rev. Bras. Frutic, v. 25, p. 475, 2003). Several studies have demonstrated the antibacterial activity of this plant, but there are not so many studies evaluating the antifungal activity (Basile, J. Med. Food, v. 13, p. 189, 2010). Thus, the aim of this study was to evaluate the antibacterial and antifungal activity of the fruits of *A. sellowiana*.

**Experimental:** The fruits of *A. sellowiana* were collected in Curitibanos (SC, Brazil), and the crude extract were prepared and used for antimicrobial test. The antimicrobial activity was determined by the microbroth dilution assay, against *Staphylococcus aureus*, *Pseudomonas aeruginosa* and *Escherichia coli* for antibacterial activity (MH medium), and against *Candida albicans*, *C. parapsilosis* and *C. tropicalis* for antifungal activity (RPMI medium). The samples were transferred to each microplate well in serial dilution from the original solution of the extract in DMSO (10%), with initial concentration of 1 mg/mL. Inocula (0.5 in McFarland scale) and extract were incubed at 25 ºC for 48 h for antifungal test, and at 35 ºC for 18-24 h to antibacterial test. In each plate were performed a sterility control (no inocula added), positive control (gentamicin and fluconazole), and negative control (DMSO only). The MIC was calculated as the highest dilution showing complete inhibition of tested strain. Tests were performed in triplicate. Extracts with MIC values under 1 mg/mL, were considered active.

**Results/discussion:** The extract of *A. sellowiana* was active against *P. aeruginosa* (MIC 1 mg/mL), a bacteria commonly related in cases of nosocomial infection (Magina, J. Nat. Med., v. 63, p. 345, 2009) that had shown resistance against antimicrobials in Brazil and other countries (Figueiredo, Rev. Bras. Ter. Int., v. 19, p. 421, 2007). No activity was found to others bacteria or fungi.

**Conclusion:** *A. sellowiana* demonstrated antibacterial activity against *P. aeruginosa*, but no antifungal activity was found.

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