Antibacterial activity of hydroalcoholic extracts of *Jacaranda puberula* Cham. (Bignoniaceae) and *Sorocea bonplandii* Baill. (Moraceae)

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**Introduction**: Medicinal plants have become an important alternative since many plants exhibit antimicrobial activity. *Jacaranda puberula* and *Sorocea bonplandii* are used popularly to treat conditions associated with bacterial infection, such as syphilis, infections of the skin, kidneys and bladder. In this study, antibacterial activity against gram-negative (*Escherichia coli, Pseudomonas aeruginosa*), and gram-positive bacteria (*Staphylococcus aureus, Streptococcus pneumoniae*) of these species was investigated.

**Experimental part**: The antibacterial activity of the hydroalcoholic extracts was determined by the Bauer disc-diffusion method, and modified by the agar-well method. The bacterial suspensions were distributed over the Mueller Hinton (MH) agar. Two wells 0.8mm diameter were made in each plate, with 45µL of one of the extracts being added to one well at a concentration of 25, 50 or 100mg/mL. The plates were incubated at a temperature of 35±2°C, for 24h, as well as negative controls (ampicillin 10µg, ciprofloxacin 5µg). Results were obtained by measuring the halo of inhibition. The Minimum Inhibitory Concentration (MIC) and Minimum Bactericidal Concentration (MBC) were tested.

**Results and Discussion**: MIC showed that *S. aureus* was resistant to the concentrations of 3.125, 6.25, 12.5 and 25mg/mL of the extract of *J. puberula*, and sensitive to the concentrations of 50 and 100mg/mL. *S. aureus* was found to be sensitive to all tested concentrations of the extract of *S. bonplandii*. *J. puberula* presented bactericidal activity against *S. aureus* at the concentration of 100mg/mL, with its MBC falling between a value >50 and ≤100mg/mL. *S. bonplandii* did not exhibit bactericidal activity against *S. aureus* at any of the concentrations tested.

**Conclusion**: These species represent a potential tool for the production of new phytomedicines with antibacterial action against important agents with high resistance to drugs in current use.

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