Phytochemical study and evaluation of antimicrobial activity of crude extract and fractions of leaves of *Cenostigma cf. macrophyllum* (Leguminosae) collected at National Forest Contendas do Sincorá (BA)

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**Introduction:** The necessity to discovery new chemicals for the treatment of infectious diseases have been increasing in the last years, due the high ability and speed of the bacteria become multidrug-resistants.

**Experimental part:** The antimicrobial activity of ethanolic extract (EE) of leaves of *C. cf. macrophyllum* (Canela de velho) was evaluated by determination of minimal inhibitory concentration (MIC) and minimal bactericidal concentration (CBM). It were examined the strains of *Streptococcus mutans* UA159, *Streptococcus mutans Ingbritt* 1600, *Streptococcus sobrinus* 6715, *Staphylococcus aureus* ATCC 25923, *Escherichia coli* ATCC 25922, *Enterococcus faecalis* ATCC 29212 and *Pseudomonas aeruginosa* ATCC 10145. The EE was tested at concentrations ranging of 1000 to 31.25 µg/mL. The plates were incubated at 37°C by 24h. Then, it was observed visually, if there was bacterial growth and confirmed with resazurin dye. As positive control it was used medium, inoculum and ethanol (10% v/v). The experiment was realized in 3 triplicates (n=9).

**Results/Discussion:** The EE of leaves of *C. cf. macrophyllum* presented antimicrobial activity against *S. mutans* UA 159, with MIC of 31.25 µg/mL and MBC of 62.5 µg/mL. followed up of the *S. sobrinus* 6715, showing values of the MIC of 250 µg/mL and of the MBC of 1000 µg/mL. For both the strains *E. faecalis* and *S. aureus*, the extract presented results of the MIC of 500 µg/mL and MBC>1000 µg/mL. And, finally, it didn’t demonstrated activity at the tested concentrations for *E. coli, P. aeruginosa* and *S. mutans Ingbritt* 1600.

**Conclusion:** The EE of leaves of *C. cf. macrophyllum* possesses antimicrobial property against *S. mutans*, *S. sobrinus*, *E. faecalis* and *S. aureus*. Then new researchs to identify the antimicrobials compounds of this plant for destruction of this microrganimos should be deepened.

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