Analgesic, antipyretic and antibacterial activities of the ethanolic extract of Stem bark of *Buchholzia coriacea* Engl. (*Capparidaceae*)

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1 ABSTRACT

The objective of this study was to evaluate the analgesics, antipyretic and antibacterial activities of stem barks ethanol extract of *Buchholzia coriacea*. The Analgesic effect was evaluated by using the acetic acid-induced writhing as well as the pain induced by formaldehyde, while antipyretic activity was evaluated using Brewer's yeast induced pyrexia (*Saccharomyces cerevisia* 20%). The antibacterial activity was determined by the liquid microdilution method. The results obtained show that the ethanolic extract at the doses of 200 and 400 mg/kg inhibits the pain induced by the acetic acid 0.6 % and by the formaldehyde 2.5 % (p < 0.001) compared to the control group. The ethanolic extract at all used doses reduces significantly (p<0.01) the hyperthermia induced by brewer's yeast (*Saccharomyces cerevisia* 20 %). Moreover, the ethanolic extract concentrations ranging from 10 to 2000 μg / ml inhibit in vitro the growth of *Pseudomonas aeruginosa* and *Bacillus Subtiliss* with Minimum Inhibitory Concentrations (MIC) of 3.25 μg/ml each, *Staphylococcus aureus* and *Escherichia coli* germs with Minimal Inhibitory Concentrations of 6.25 μg/ml. The Minimum Bactericidal Concentrations (MBC) was 3.25 μg/ml for *Pseudomonas aeruginosa* and 6.25 μg/ml for *Bacillus subtiliss*. For *Staphylococcus aureus* and *Escherichia coli*, the MBC was 12.5 μg/ml. These results suggest that the ethanolic extract of stem barks of *Buchholzia coriacea* has analgesic, antipyretic and antibacterial effects. These effects could justify the traditional utilization of stem barks of *Buchholzia coriacea* in the pain and fever treatment, but also against bacteria strains.