

## ANTIBACTERIAL ACTIVITY OF *Eryngium pristis* CHAM. & SCHLTDL. (APIACEAE) AGAINST METHICILLIN-RESISTANT *Staphylococcus aureus* (MRSA): LOOKING FOR NEW THERAPEUTIC OPTIONS!

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*Eryngium pristis* Cham. & Schldt (Apiaceae) is a South America's native shrub, mainly existing in Bolivia and Brazil. This plant species is traditionally used in the treatment of thrush, ulcers of throat and mouth, as a diuretic for diabetics and emmenagogue, but poorly scientifically explored. The current study aimed to investigate the antibacterial activity of ethanolic extract (EE) and hexane (HF), dichloromethane (DF), ethyl acetate (AF) and butanol (BF) fractions obtained from *E. pristis* leaves. The botanical material was collected in São João del Rei, Minas Gerais, Brazil, on January 2012. The antibacterial activity was established by the determination of the Minimal Inhibitory Concentration (MIC) using microdilution method as recommended in the Clinical Laboratory Standards Institute (CLSI) guidelines followed by the Minimal Bactericidal Concentration (MBC) according to the Andrews's procedure with little adjustments, classifying the pharmacological effect as bacteriostatic or bactericidal. *Staphylococcus aureus* subsp. *aureus* (ATCC<sup>®</sup>29213<sup>™</sup>) and *Staphylococcus aureus* subsp. *aureus* (ATCC<sup>®</sup>6538<sup>™</sup>) were used as reference strains. Methicillin-resistant *Staphylococcus aureus* (MRSA) clinical strains (1485279/1688441/1605677) were also used. EE (bactericidal), HF (bacteriostatic) and AF (bacteriostatic) were active against *S. aureus* (ATCC<sup>®</sup>29213<sup>™</sup>) with MIC of 2.5, 2.5 and 5 mg/mL, respectively. EE (bactericidal), HF (bacteriostatic) and AF (bactericidal) were active against *S. aureus* (ATCC<sup>®</sup>6538<sup>™</sup>) with MIC of 5, 1.25 and 2.5 mg/mL, respectively. EE (bacteriostatic), HF (bacteriostatic) and AF (bacteriostatic) produced MIC of 5, 5, 2.5 mg/mL, in this order, against MRSA (1485279) and MRSA (1688441). EE (bacteriostatic), HF (bacteriostatic), DF (bacteriostatic), AF (bacteriostatic) and BF (bacteriostatic) were active against MRSA (1605677) with MIC of 2.5, 5, 5, 2.5, 5 mg/mL, respectively. These results suggest that *E. pristis* is an interesting source of active constituents for the search of antibacterial agents as a new therapeutic approaches.

**Keywords:** *Eryngium pristis*, Apiaceae, Anti-Bacterial Agents, Plants, Medicinal, *Staphylococcus aureus*

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