Morphoanatomy and Antimicrobial Study of

Syzygium jambos (L.) Alston (Myrtaceae) Leaves

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SUMMARY. Syzygium jambos (L.) Alston (Myrtaceae) is commonly employed as a digestive and anti-inflammatory folk medicine. As there is a lack of data concerning this medicinal plant, morpho-anatomical studies on the leaves of this potential vegetal drug were conducted in this study. The fully expanded leaves were fixed and prepared for light microscopy observations. The hydroethanolic leaf extracts were tested for antimicrobial activity in vitro using the agar dilution method. Toxicity studies were also performed. The typical features of Myrtaceae, such as a dorsiventral mesophyll, bicollateral vascular bundles and sub-epidermal secretory cavities, were observed in the leaves. However, some anatomical features, such as overlying cell wall shape, were useful for the morpho-diagnosis of this species. The extract inhibited the growth of Staphylococcus aureus with a minimum inhibitory concentration between 200 and 300 μg/mL, but it exhibited no activity against Escherichia coli, Aspergillus niger and Candida albicans at 1000 and 2000 μg/mL. The LC50 of this extract was 4.70 g/kg in mice.

KEY WORDS: Antimicrobial, Morphoanatomy, Myrtaceae, Syzygium jambos, toxicity.

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