

PHYTOCHEMICAL STUDY OF LEAVES AND BRANCHES FROM *Jacaranda obovata* (BIGNONIACEAE)

Davi Veiga Dutra,^{1*} Lucienir Pains Duarte,¹ Grasiely Faria de Sousa.^{1*}

**grasielysousa@ufmg.br*, davivtr@ufmg.br

1-Neplam, Departamento de Química, ICEx, UFMG, Av. Antônio Carlos, 6627, Belo Horizonte, MG, Brazil.

Bignoniaceae Juss. is a dicotyledonous family comprising about 700-800 species grouped in 100-125 genera, being especially common in the tropics of South America, with lower representation in temperate regions. The genus *Jacaranda*, belonging to this family, includes 49 species around the world that are native to Central and South America and the Caribbean. Of these, 39 taxa are endemic to Brazil.¹ This genus has demonstrated pharmaceutical potential due to metabolites exhibiting several biological effects, including anti-inflammatory and antimicrobial activities.² Despite the genus diversity and its potential, there are still a few studies that clarify the secondary metabolites present in the species and their respective biological activities. *Jacaranda obovata* Cham., commonly known as “Carobinha”, is an example of an understudied species of *Jacaranda*. In this context, the present work aimed to advance the identification and isolation of metabolites synthesized by *Jacaranda obovata* searching for compounds with biological activity in their leaves and branches. A total of 698.3 g of dried and powdered leaves and branches were subjected to successive maceration with hexane, chloroform, and ethanol at room temperature. Following each extraction step, the extracts were filtered and subsequently concentrated under reduced pressure using a rotary evaporator, affording the corresponding crude extracts. The 12.38 g of chloroform extract were subjected to silica gel column chromatography to purify the compounds. The characterization was performed using ¹H, ¹³C and DEPT-135 NMR spectroscopy. To date, approximately 900 mg of 3 β -hydroxy-urs-12-en-28-oic acid (ursolic acid) have been identified. Ursolic acid is a natural product with recognized biological activity, such as anti-inflammatory, antioxidant, and anticancer activities.³ These findings indicate that, in addition to its intrinsic activity, ursolic acid also holds potential for the synthesis of derivatives in future studies aimed at pharmacological applications.

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References: ¹Gachet, M.S., Schühly, W. Journal of Ethnopharmacology 121, 14–27, 2009. ² Serra, M. B., et al. Biomedical Journal of Scientific & Technical Research, 28, 21730–21734, 2020. ³Kashyap, D., et al. Life Sciences, 146, 201–213, 2016.

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