



## **The potential of *Luehea Divaricata* as a traditional therapeutic resource**

### **O potencial de *Luehea Divaricata* como recurso terapêutico tradicional**

**Gabrielle N. F. Silva**

**Gilmara R. Oliveira**

**Josilene Marques**

**Rosa M. Rodrigues Lima**

**Elias M. S. Rodrigues**

**Iracely R. Silva**

**Euzebio Oliveira**

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### **1 INTRODUCTION**

Since ancient times, traditional therapeutic systems have been used by man to solve health problems. The perception and use of remedies in traditional communities occur due to the interaction with the natural environment, influencing the ways of life, education and culture. The environment is apprehended by these populations from their experiences, adding symbolic values, beliefs and myths (DIEGUES, 2000).

In Brazil, the high degree of diversity of plant species for therapeutic purposes or not, and the different cultures involved in the formation of society present different ways of using plants. Almost all medicinal plants from the native flora are used without proof of their pharmacological actions or toxicities that they may cause to humans. And when compared to conventional medicines, there is the idea that they are harmless and this is an erroneous idea (VEIGA et. al, 2005). And this is how the plant species *Luehea divaricata* is also used.

*Luehea divaricata* Martius & Zucarini is a species belonging to the Malvaceae family. Regarding its biological form, it is a large tree that can reach dimensions close to 30 meters in height. The geographical distribution of *L. divaricata* occurs naturally in South American countries such as Argentina, Paraguay, Uruguay and Bolivia



(CARVALHO, 2003; TIRLONI, 2018). In Brazil, the species occupies areas of riparian forests, both in waterlogged and/or well-drained soils and in deep soils and/or stony soils (DE OLIVEIRA et al., 2021). And it has vernacular names such as: Estriveira, Ivitinga, Açoita-cavalo, Saco-de gambá, Pau-de-canga, Ibitinga, Ivatingui (CARVALHO, 2003; TANAKA et al, 2005; SILVA et al., 2021); Ibatingui, Pau-de-canga and Caiboti in other regions of the national territory (LORENZI, 2002; BATISTA et al., 2016).

## **2 OBJECTIVE**

To investigate through the scientific literature the therapeutic potential of the species *Luehea divaricata*, its active principles and their levels of toxicities.

## **3 METHODOLOGY**

This is a research with a descriptive qualitative methodological approach, through field research, using *Respondent Driven Sampling* (RDS) as techniques to collect data, interviews with 25% of the research population, and the collection of the species for identification. Subsequently, a scientific survey was carried out on the active principles of the species and its toxicity in Scielo, PubMed, Google Scholar databases, among others.

## **4 DEVELOPMENT**

The therapeutic indications are diverse, including for the treatment of cardiovascular and respiratory diseases (ALTAMIRANO & YAJÍA, 2020), dysentery, leucorrhea, rheumatism, blenorria, tumors, bronchitis and purging (BERNARDI-WENZEL et al., 2010). The species has excellent antioxidant action because it contains in its phytochemical composition quercetin, rosmarinic acid, vitexin and other phenolic compounds (NUNES et al., 2015).

The barks are used in folk medicine in the form of decoct or infusion, often administered orally, as anti-inflammatory, diuretic and as antirheumatic (BIGHETTI et al., 2004), antianemic, antiseptic mouthwash, antidiarrheal, astringent, antipyretic, antitumor (BATISTA et al., 2016), arthritis, rheumatism and leucorrhea, and as a vermifuge (ROSA et al., 2014).

The infusion of the leaves is indicated for dysentery, leucorrhea, rheumatism, blenorragia and tumors, aiming at anti-inflammatory, soothing and antispasmodic effects (TANAKA et al., 2005; BATISTA et al., 2016). The root is considered a



depurative and anti-inflammatory (BERNARDI-WENZEL et al., 2010; BATISTA et al., 2016). Few studies have been conducted on the toxicity of *L. divaricata* (TIRLONI, 2018). Studies by Bighetti et al. (2004), Felicio et al. (2011) show some data that direct to the low genotoxic and mutagenic potential, as well as the absence of toxicity in mice.

## **5 FINAL CONSIDERATIONS**

Extracts of the bark, leaves, flowers and roots of *L. divaricata* have scientifically proven therapeutic properties, however much of these pharmacological actions are not yet associated with a specific chemical compound that actually determines the main reason for their therapeutic properties, indicating that further studies should be carried out for clarification.



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