



The Potential of Jucá (*Caesalpinia ferrea*) in the Treatment of Gastrointestinal Disorders in Bacuriteua, Pará

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ABSTRACT

Medicinal plants are those that can be cultivated or found naturally, which harbor categories of substances capable of triggering therapeutic effects after harvesting and stabilization procedures (BRASIL, 2009). Since the dawn of civilization, human beings have relied on nature as an essential source for their survival, using medicinal species to treat their ailments. This initial milestone triggered a prolonged journey of manipulation, adaptation, and transformation of natural resources for their own benefit (PINTO et al., 2014).

Keywords: Medicinal plants, Natural resources.

1 INTRODUCTION

Medicinal plants are those that can be cultivated or found naturally, which harbor categories of substances capable of triggering therapeutic effects after harvesting and stabilization procedures (BRASIL, 2009). Since the dawn of civilization, human beings have relied on nature as an essential source for their survival, using medicinal species to treat their ailments. This initial milestone triggered a prolonged journey of manipulation, adaptation, and transformation of natural resources for their own benefit (PINTO et al., 2014).

Phytotherapy is characterized by the therapeutic use of medicinal plants in various pharmaceutical presentations and contexts. In this method, the individual uses active substances, or isolates, from plant sources as part of their treatment (BRASIL, 2006; SANTOS et al, 2002; JUNIOR; SACRAMENTO, 2012; SILVA et al, 2020; MORAES et al, 2020). The increasing incidence of gastrointestinal disorders, such as peptic ulcers and reflux, has motivated the exploration of the therapeutic potential of medicinal plants and their practices as a means of improving therapeutic approaches to combat these pathological conditions.



2 OBJECTIVE

OBJECTIVE: To investigate the traditional therapeutic use of *Caesalpinia ferrea* "Jucá" in an Amazonian community, observing indicators of possible efficacy in the active ingredients of the species.

3 METHODOLOGY

The study was carried out in the community of Bacuriteua, which is located in Bragança, Pará, in the Caeté River Basin. The research had a qualitative approach, of the field research type through direct observation and interviews with key informants to obtain explanations about how the use of Jucá occurs in the community for the treatment of gastrointestinal symptoms, using the *Respondent-Driven Sampling* (RDS) methodology, with adaptations to the local reality. The data were analyzed based on the triangulation of information collected in the community, in specialized bibliographies and in international databases.

4 DEVELOPMENT

Caesalpinia ferrea has been widely used to treat pain in the digestive system through stem tea, by decoction, to combat gastrointestinal pain. This is an arboreal plant, with wide dispersion and low population density (MAIA, 2004). Its results of uses have been cited as effective for fighting pain and inflammation. *C. ferrea* is composed of flavonoids, saponins, tannins, coumarins, steroids and phenolic compounds and has methanol extracts and solvents (CASTRO, 2017). The peel of the fruit has antioxidant activity compared to the seed and fractions of the peel of the fruit. Flavonoids have several biological activities, such as anti-inflammatory, antiviral, antibacterial, antiallergic and vasodilator action (MACHADO et al, 2008), and saponins, tannins, coumarins, among others, develop therapeutic actions in the human body.

These chemical compounds may be performing anti-inflammatory action to combat gastrointestinal problems in users who have an inflamed intestinal tract, relieving pain and symptoms, indicating their usefulness in the prevention or treatment of various diseases. However, much still needs to be elucidated because regarding the toxicity of *C. ferrea* in vital and non-vital organs, the occurrence of a hepatotoxic effect in the organism has been reported (QUEIROZ NETO, 2002), which requires new tests to obtain future results of the species' action in the human organism. For studies carried out in the community of Bacuriteua - Pará, according to the questionnaire used, we can highlight that most of these subjects interviewed are female and have a knowledge relationship with the use of medicinal plants. To this end, the study showed us that the residents use and cultivate for health treatment, mainly related to gastrointestinal diseases, obtaining satisfactory results regarding its effectiveness.



5 FINAL THOUGHTS

Caesalpinia ferrea is part of the rich biodiversity of the Amazonian flora and stands out as a valuable source used in the treatment of several diseases associated with inflammatory processes, also covering diseases of the gastrointestinal tract. This use demonstrates their substantial relevance and the indispensability of these resources in addressing health problems in the population. Thus, these vegetables are extremely important alternatives, notably due to their affordable cost. *C. ferrea*, in particular, stands out for its therapeutic properties, driven by the presence of anti-inflammatory chemical compounds.



REFERENCES

BRASIL. Ministério da Saúde. Secretaria de Ciência, Tecnologia e Insumos Estratégicos. Departamento de Assistência Farmacêutica. Decreto nº 5.813, de 22 de junho de 2006. Política Nacional de plantas medicinal e fitoterápico. Brasília: Ministério da Saúde, 2006.

BRASIL. RENISUS – Relação Nacional de Plantas Medicinais de Interesse ao SUS. Brasília: Ministério da Saúde, 2009.

CASTRO, J. F. A. Estudo da atividade antioxidante em frutas nativas e exóticas brasileiras. 2012, 85 folhas. Dissertação de mestrado (Biotecnologia - Bioquímica e Tecnologia Química), Universidade Estadual Paulista UNESP, Instituto de Química - Araraquara 85 f., 201e Pernambuco, Recife, 128f. 2017

JÚNIOR, H. S.; SACRAMENTO, H. T. (2012). Atenção à saúde com plantas medicinais e fitoterapia. *In*: BRASIL. Práticas integrativas e complementares: plantas medicinais e fitoterápicos na Atenção Básica – Brasília: Ministério da Saúde.

MACHADO, H.; NAGEM, T. J.; PETERS, V. M.; FONSECA, C. S.; OLIVEIRA, T. T. Flavonóides e seu potencial terapêutico. *Boletim do Centro de Biologia da Reprodução, Juiz de Fora*, v. 27, n. 1/2, p. 33-39, 2008.

MORAES, J. S et al. O uso da planta *Cissus Verticillata* (Insulina) no tratamento do Diabetes Mellitus, em uma comunidade costeira do Pará, Amazônia, Brasil. *Research, Society and Development*, v. 9, n. 7, 2020.

PINTO, L. N.; FLOR, A. S. S.; BARBOSA, W. L. R. (2014). Fitoterapia popular na Amazônia Paraense: uma abordagem no município de Igarapé-Mirí, estado do Pará nos anos de 2000 e 2008. *Rev. Ciênc. Farm. Básica Apl.*, 35(2), 305-311.

QUEIROZ NETO, A. et al. Toxic effects of *Annona squamosa* seed extract in rats and swine. *Revista Brasileira de Toxicologia*, v. 10, p. 11-15, 1997.

SANTOS, D. L. et al. Fitoterapia tradicional em uma comunidade do nordeste do Pará: o uso de *Eleutherine plicata* Herb. no tratamento da Amebíase. *Research, Society and Development*, v. 9, n. 7, 2020.

SILVA, G. N. F. et al. O uso da planta “Canarana” (*Costus arabicus* L.) no tratamento de cálculo renal em uma comunidade tradicional do nordeste paraense-Amazônia-Brasil. *Research, Society and Development*, v. 9, n. 8, 2020.