The use of "Jucá" (*Caesalpinia férrea*) as a treatment for gastrointestinal diseases in Bacuriteua, PA

O uso de "Jucá" (*Caesalpinia férrea*) como tratamento para doencas gastrointestinais em Bacuriteua, PA

Gilvan Correa V.

Gabrielle N. F. Silva

Jones S. Moraes

Rosa M. Rodrigues Lima

Elias M. Rodrigues

Iracely R. Silva

Euzébio Oliveira

Keywords: Medicinal plants, Caesalpinia férrea, Gastrointestinal diseases.

1 INTRODUCTION

Medicinal plants are plant species cultivated or not, which contain classes of substances responsible for therapeutic actions after the processes of harvesting and stabilization (BRAZIL, 2009). Since the beginning of humanity, primitive man depended on nature as a means of survival and used medicinal species to cure his illnesses, beginning a long trajectory of handling, adapting and transforming natural resources for his own benefit (PINTO et al., 2014).

Studies show that the practice of phytotherapy is configured by the therapeutic use of medicinal plants in their different forms and pharmaceutical contexts, in which the individual uses active or isolated substances of plant origin to obtain a treatment (SANTOS et al, 2002; SILVA et al, 2020; MORAES et al, 2020; JÚNIOR; SACRAMENTO, 2012; BRASIL, 2006).

Gastrointestinal disorders such as peptic ulcers, reflux, gastritis, inflammatory bowel diseases (Crohn's disease) in general, have led to the need to investigate how the use of medicinal plants and their practices can favor therapeutic treatments to combat these pathologies.

2 OBJECTIVE

To investigate the traditional therapeutic use of *Caesalpinia ferrea* "Jucá" in an Amazonian community, observing indicators of possible efficacy in the active principles 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 from the triangulation of information collected in the community, in specialized bibliographies and in international databases.

4 DEVELOPMENT

Caesalpinia ferrea is an arboreal plant, of wide dispersion and low population density, forming a rounded, closed and dense crown (MAIA, 2004). The community has used the tea by decoction to combat gastrointestinal pain. As for its chemical composition that acts with therapeutic purposes, *C. ferrea* is composed of flavonoids, saponins, tannins, coumarins, steroids and phenolic compounds. It has methanol and solvent extracts (CASTRO, 2017).

The fruit peel has higher antioxidant activity compared to the seed and the fractions of the fruit peel. Flavonoids have several biological activities, such as anti-inflammatory, antiviral, antibacterial, antiallergic and vasodilator action (MACHADO et al, 2008), as well as saponins, tannins, coumarins among others develop therapeutic actions in the human body.

These chemical compounds may be performing antiflammatory action to combat gastroinstestinal problems in users who have inflamed instestinal 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, it was reported to the occurrence of hepatotoxic effect in the body (QUEIROZ NETO 2002), which requires new tests to obtain future results of the species' performance in the human organism.

5 FINAL CONSIDERATIONS

Caesalpinia ferrea is part of the biodiversity of the Amazonian flora and has been widely used to treat diseases caused by inflammation in general, including the gastrointestinal tract. This reveals its importance and the dependence on these resources for the treatment of health problems in the population. In this sense, these vegetables are extremely important alternatives because they are low cost. *C. ferrea* is a species that has therapeutic actions due to the presence of antiflammatory 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.