



The use of purple cotton (*Gossypium herbaceum*) as a natural treatment in the Bacuriteua community, in the Região Amazônica

O uso de algodão roxo (*Gossypium herbaceum*) como tratamento natural na comunidade Bacuriteua, na Região Amazônica

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1 INTRODUCTION

The use of nature for therapeutic purposes is as old as human civilization, historically, medicinal plants are important in phytotherapy and in the discovery of new drugs (MOREIRA & OLIVEIRA, 2017). However, in order to be used for therapeutic purposes, plants must meet criteria of efficacy, safety and therapeutic actions, in addition to the chemical composition, since it is common to make mistakes between different species known by the same popular name.

The present work seeks to present elements on traditional knowledge in the use of the plant *Gossypium Herbaceum*, known as purple cotton, used as a natural treatment in the community of Bacuriteua, in the municipality of Bragança do Pará. The purple cotton plant, (*Gossypium Herbaceum*) is notably known to be potent in the treatment of cancer, epilepsy, depression, radical scavenging, diabetes, bacterial infection and malaria (LARAYETA et al., 2021). It is a herb native to India, cultivated in Africa, Asia and in Brazil it has naturalized origin, being common in the North and Northeast regions. It is found in arid and semi-arid environments, in more humid areas cultivation is not frequent



because it is a dry area species (ESTEVEZ, 2015). Thus, it is necessary to understand the effectiveness of the action of the active principles of the plant in therapeutic activity in the natural treatment of diseases.

2 OBJECTIVE

Relate the popular use of *Gossypium Herbaceum* "purple cotton" with its efficacy according to the specialized literature.

3 METHODOLOGY

The research was carried out in a descriptive qualitative approach, with field research, using as data collection techniques interviews to verify the use of the species to 25% of the population surveyed and collection of the species for identification. Subsequently, a scientific survey was carried out on the active principles of the plant and its toxicity in scientific databases.

4 DEVELOPMENT

The Bacuriteua community uses the purple cotton plant (*Gossypium Herbaceum*) as a natural treatment for colds and flu. Traditionally, the use of home remedies to combat diseases such as flu, colds and digestive problems is common in communities due to the framework of knowledge related to the plant world in which these societies are in contact. Thus, the therapeutic use of medicinal plants has been an action that has been perpetuated from generation to generation in traditional communities, and proven in several treatises on phytotherapy (CORREA JUNIOR, 1991).

In folk medicine, the juice, bath or tea of the purple cotton leaf (*Gossypium Herbaceum*) are used as a purgative, for the treatment of thumps, as an anti-inflammatory, pneumonia and lung strengthening, cough, colic, grooming for women, gastritis and sore throat (SILVA, 2015). This species has in its composition the presence of carbohydrates, tannins, starch, betaine, saponins, alkaloids, flavonoids, steroids, phenols, glycosides and terpenoids (SHARMA et al., 2011).

According to ETGES (2007) gossypol is among the major chemical constituents of *G. herbaceum* extract, which is present in the seeds, stem and root of the cotton plant, has ethanol and hexane extracts with therapeutic active principles, diuretic, antibacterial, anti-ulcer activity, antioxidant potentials, wound healing effect, antiepileptic, antidiabetic, anthelmintic and anti-ureolytic activities that have been attributed to G.



herbaceum in the literature. Besides having, unique properties like antifertility, abortifacient, antitumor, antispermatogenic, contraceptive, antidibetic, antiviral, antibacterial, constipation and used in gastric irritation, diarrhea, dysentery, dysuria, rheumatoid arthritis and otalgia (SHARMA et al., 2011).

Another point is the toxic effects that have occurred which can be explained, at least in part, by the presence of gossypol in *G. herbaceum* (ETGES, 2007). Other toxicities presented in the plant are male infertility, hair discoloration, malnutrition, diarrhea, muscle weakness, circulatory and kidney problems. Use during pregnancy is not recommended, as well as prolonged use should be avoided and try to correctly follow the dose indicated by health professionals (OLIVEIRA, 2015).

5 FINAL CONSIDERATIONS

In view of the great diversity of benefits and active factors that make up purple cotton, *G. herbaceum*, used in the treatment of diseases, due to anti-inflammatory, antiepileptic, antidiabetic, anthelmintic and anti-ureolytic actions, it is worth emphasizing the great importance of the wealth of information regarding the knowledge of the use of purple cotton to treat the most diverse diseases, especially those that most commonly affect individuals such as flu, fever, inflammation in the throat, worms, diarrhea among others. However, this study indicates further investigations for safe use in the face of possible toxicities and adverse reactions from use.



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