Pogostemon heyneanus "Oriza" as an alternative in the treatment of stroke in the amazonian community of Camutá (NE Pará)

Pogostemon heyneanus "Oriza" como alternativa no tratamento do acidente vascular cerebral na comunidade amazônica de Camutá (NE Pará)

Iracely R. Silva

Caio V. R. Ferreira

Jones S. Moraes

Arlete S. Ferreira

Josilene M. Marques

Gilmara R. Oliveira

Rosa M. Rodrigues Lima

Elias M. S. Rodrigues

Euzebio Oliveira

Keywords: Amazonian community, Pogostemon heyneanus, Stroke**.**

1 INTRODUCTION

The use of medicinal plants in the Amazon plays a vital role in treating diseases and promoting the health of local communities (VÁSQUEZ et al., 2014). These plants offer therapeutic benefits while encouraging the conservation of traditional knowledge. Continued scientific research in this area can open doors to new discoveries and advances in medicine, harnessing the natural wealth of the Amazon for the benefit of all. In this sense, in recent years, there has been a growing interest in the use of Pogostemon heyneanus as a complement to combat the symptoms of stroke.

Brazil ranks first in the number of cases of deaths and functional disabilities caused by stroke since 2015 to the present day (DATASUS, 2022). This high rate of stroke in Brazil is a consequence of the lack of homogeneous structure in the country, with specialized centers only in more developed regions such as the South and Southeast.

Stroke is a temporary medical condition that requires immediate treatment to minimize air damage and promote recovery (HATANO, 2019).

In the community of Camutá, Amazon region, residents have been using the species *P. heyneanus* for the treatment of stroke validated from traditional knowledge based on generations. Considering the importance of the species and the safety of use in health therapies, we sought to record the uses of *Pogostemon heyneanus* "oriza" in the treatment of stroke observing whether the active principles present in the species are related to its effectiveness.

3 OBJECTIVE

To record the use of Oriza (*P. heyneanus*) as an alternative treatment to relieve stroke symptoms, highlighting the indicators of efficacy through studies on its active principles in the specialized literature.

3 METHODOLOGY

The research was developed in a qualitative methodological approach, through field research, using the following techniques to survey health therapy in the community: *Free listing* where each informant mentioned the species most used in the treatment of stroke, highlighting the "Oriza", which was collected, and herborized for botanical identification. Interview, carried out using a structured script with specific questions about the ethnospecies, a precision scale for weight measurements (*g*) of the part of the plant used as a remedy, a beaker for measuring the amount of water (mL) used in the preparation, and as support for laboratory analysis. And later the survey on its therapeutic actions was analyzed according to the specialized bibliography.

4 DEVELOPMENT

In Camutá they use "oriza" leaves in the form of tea (approximately 21 g of leaves and 300mL of water) once a day. Studies show that the species *P. heyneanus* has the following chemical compounds: monoterpenes, oxygenated monoterpenes, sesquiterpenes, aliphatics and arylpropanoids. The most prevalent compounds are patchouli alcohol, α-bulnesene, α-guaiene, seichelene and α-patchulene (SOUZA FILHO et al., 2019). The plant has therapeutic properties such as anti-inflammatory, antidepressant, aphrodisiac and antiseptic actions (ZHAO Z et al. 2019).

It is known that platelets contribute considerably to the onset of stroke, and this is due to the relationship of platelets with thrombus formation, thus causing a restriction in blood flow. Therefore, the α-bulnesene structure ends up preventing the specific binding of platelet activating factor (PAF) to its receptor, sealing excess calcium in the blood, thus preventing the formation of thrombi causing infarcts (HATANO, 2019). Therefore, further studies on the actions of α-bulnesene present in this species are of paramount importance to define a safe use or development of natural drugs.

5 FINAL CONSIDERATIONS

This study suggests that there are indicators that the use of Pogostemon heyneanus may be a natural alternative in the treatment of stroke symptoms. Its active components may help reduce inflammation in the brain after a stroke, limiting the extent of damage and promoting brain recovery. But more research is needed to establish its exact role and ensure its safety and efficacy as part of stroke treatment.

RFERENCES

DATASUS. Departamento de Informática do SUS. DATASUS TabNet: dados tabulados de saúde. Brasília, DF, 2022. Disponível em: <URL> . Acesso em 23 jun 2022.

HATANO S. Experience from a multicentre stroke register: a preliminary report. BULL. WORLD HEALTH ORGAN. [online]. 1976. 54(5): 541–553. [acesso 23 jun. 2019]; disponível em: [https://www.ncbi.nlm.nih.gov/pubmed/1088404]

SOUZA FILHO A.P.S.; VASCONCELOS, MAM; ZOGHBI MGB; CUNHA, RL. Efeitos potencialmente alelopáticos dos óleos essenciais de Piper hispidinervium C. DC. e Pogostemon heyneanus Benth sobre plantas daninhas. Acta Amazonica [online]. 2009 [acesso 24 Mai 2019];(v. 39, n. 2):p. 389-396. Disponível em: URL: http://www.alice.cnptia.embrapa.br/alice/handle/doc/574187

VÁSQUEZ et al. Etnobotânica de plantas medicinais em comunidades ribeirinhas do Município de Manacapuru, Amazonas, Brasil. Acta Amazônica, vol. 44(4) 2014: 457 – 472, 2014

ZHAO Z et al. Determination of Patchoulic Alcohol in Herba Pogostemonis by GC-MS-MS. Chemical Pharmaceutical Bulletin [online]. 2005 [acesso 22 Mai. 2019];(v.53, n.7):856-860. Disponível em: URL: https://www.jstage.jst.go.jp/article/cpb/53/7/53_7_856/_article/-char/ja/