Analysis of the phytochemical profile and evaluation of anti-inflammatory activity and genotoxicity of *Tripodanthus acutifolius* (Ruiz & Pavón) Tieghem, Loranthaceae.

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**Introdução**: *Tripodanthus acutifolius* is a mistletoe plant included in the Loranthaceae family, known popularly as "herb-of-bird." It is widely distributed in South America, where grows on large amount of hosts. This work aims to analyze the phytochemical composition, as well as the anti-inflammatory and genotoxic potential of aqueous and methanol *T. acutifolius* leaves extracts.

**Parte experimental**: The leaves were collected in the Santa Cruz do Sul, RS. The extracts were made by maceration with water or methanol. A phytochemical screening was carrying out to identify the secondary metabolites main classes present in this specie. The anti-inflammatory activity was investigated by carrageenan-induced paw edema model and the genotoxic potential was assessed by the Comet assay.

**Resultados/Discussão**: The yield of the extracts calculated was 30% and 20%, to aqueous and methanol extracts, respectively. The phytochemical analyses showed that the both extracts have flavonoids, tannins and anthracene compounds. It was not possible to identify the presence of alkaloids and saponins. In the anti-inflammatory activity trial, while the aqueous extract reduces the paw edema at higher dose, the methanol extract showed no activity. The DNA breaks evaluation, of the blood cells, showed absence of genotoxicity to aqueous extract, with anti-genotoxic activity evidence.

**Conclusão**: The obtained methanolic and aqueous leaves extracts presented similar qualitative polyphenolic compounds. The aqueous extract presented antiinflamatory activity and it was found to be non-genotoxic, with possible anti-genotoxic activity. Further studies are needed to quantify exactly the polyphenolic amounts contained in these extracts and such data could help to comprehend the different biological activities.