

ANTI-INFLAMMATORY ACTIVITY OF *HYPHAENE THEBAICA* LEAVES AND SEEDS ETHANOLIC EXTRACTS

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Background

Hyphaene thebaica (doum palm) is tradionally used in Sudan as an anti-inflammatory agent mainly for rheumatism treatment. The aim of this study is to determine its anti-inflammatory effect.

Methodology

The extract of *H. Thebaica* was prepared by continuous extraction method using the Soxhlet apparatus.

The inflammation was induced to the rats by injected with 1% carrageenan (0.1 ml /100g). The rats were divided into the negative control group (normal saline); positive control group (received standard Sodium Diclofenac (20 mg/kg), and tested groups received the tested extracts (200- 400 mg/kg mg/kg). The paw size was measured immediately before carragenaan injection, and after the first, second, third, fourth hour of injection using Digital clipper.

Findings

The paw size inhibition (anti-inflammatory) in all rats treated with Diclofenac sodium was signifigantly increase with time till getting closer to zeroe (100%). In the negative group paw size was not affected. The rats treated with *H. thebaica* leaves extract significantly inhibited the inflammation, and the inhibition is dose and time depandant. Seed extract was also inhibit the inflammition with dose and time depandant, but it is less than the leaves. Phytochemical screening of *H. thebaica* leaves and seeds revealed the presence of alkaloids, terpenoids, saponins, and flavonoids, which were known for their anti-inflammatory activity. Addition to the amount of these compounds are found to be higher in leaves than in seed, along with the presence of sterols solely in leaves, so the activity is higher in leaves extract than seeds extract.

Conclusion

The study concluded the anti-inflammatory activity of *H. Thebaica* leaves and seeds extracts, which is higher and more significant in leaves extract than seeds extract compatible with sudanese traditional medicine in the treatment of anti-inflammatory with *H. thebaica* leaves.

Biography

Mayada Ahmed is a pharmacist graduated from University of Medical Sciences and Technology (UMST) in 2016, with a graduation project in medicinal plants. At the age of 24 years old (2018) she completed a master program in clinical pharmacy at the same university.

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