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Analgesic, anti-inflammatory and antiemetic activities of *Cleome scaposa* DC.

Najma Shaheen, Salman Ahmed, Iqbal Azhar, Muhammad Mohtasheemul Hasan*

Department of Pharmacognosy, Faculty of Pharmacy, University of Karachi, Karachi – 75270, Pakistan

*Corresponding author: phm.hasan@gmail.com ;Tel:(+9221) 99261300-7 Ext. 2400

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Abstract

Cleome scaposa DC., has long been used in traditional herbal medicine for the treatment of pain and inflammation. The present investigation is an attempt to evaluate antiemetic, analgesic and anti-inflammatory activities of *Cleome scaposa* leaves methanolic extract by using chick emesis model (oral treatment), analgesy meter test (intraperitoneal treatment) in rats and carrageenan induced rat paw edema (oral treatment) respectively. The antiemetic activity (150 mg/kg b.w., of extract) was carried out by using chlopromamize (150mg/kg) as standard antiemetic drug. The analgesic activity (250 mg/kg b.w., of extract) was performed by using diclofenac sodium (50mg/kg) as standard analgesic drug whereas, anti-inflammatory activity (500mg/kg b.w., of extract) was done and indomethacin (10mg/kg) was taken as standard anti-inflammatory drug. The results showed significant antiemetic, analgesic and anti-inflammatory effects.

Keywords: *Cleome scaposa* ; antiemetic; analgesic; anti-inflammatory

Introduction

Plant derived substances are continue to have a place in the process of drug discovery, especially in the development of new analgesic and anti-inflammatory drugs. They not only help in the development of new analgesic and anti-inflammatory drugs but also greatly contributed to understand complex pathway of pain transmission, receptor types and endogenous ligands involved in pain transmission. Isolation of morphine (*Papver somniferum*), tetrahydrocannabinol (*Cannabis sativa*), Capsaicin (*Capsicum* species), Salicylic acid (*Salix* species) prove the involvement of opioid (μ,δ and κ), cannabinoid (CB_1 and CB_2), vanilloid receptors and cycloooxygenase enzyme respectively in pain and inflammation. The search for new naturally occurring analgesic and anti-inflammatory compounds is intensifying because of their effectiveness, lack of serious side effects and providing significant leads in the development of more effective synthetic molecules (Calixto *etal.*,2000). Search for analgesic and anti-inflammatory secondary metabolites proved alkaloids, flavonoids, steroids and terpenoids as analgesic (Calixto *etal.*,2000) whereas alkaloids, fatty acids, polyphenolics (fla-

