ISSN: 2186-8476, ISSN: 2186-8468 Print
Vol. 1. No. 1. March 2012

ETHNOPHARMACOLOGICAL STUDIES ON ANTISPASMODIC, BRONCHODILATOR AND ANTIPLATELET AGGREGATION ACTIVITIES OF *BLEPHARIS EDULIS* , PERS

Fatima Saqib[1], Khalid Hussain Janbaz[1], Muhammad Farhaj Latif[1], Anwarul Hassan Gilani[2], Samra Bashir[2]

[1]Faculty of Pharmacy, Bahauddin Zakariya University, Multan, &
[2]Department of Biological and Biomedical Sciences,
Aga Khan University Medical College, Karachi,
PAKISTAN
fatima_pharmacology@hotmail.com

ABSTRACT

Blepharis edulis, Pers. is traditionally used for gastrointestinal, respiratory and inflammatory disorders. The Aim of the studywas to rationalize the medicinal use of Blepharis edulis in gastrointestinal, respiratory and inflammatory disorders. The aqueous-ethanolic extract of Blepharis edulis seed (Be.Cr) was studied for its antispasmodic and bronchodilator effect on the isolated rabbit jejunum and tracheal preprations respectively and for antiplatelet effect using ex vivo model of human platelets. Results were: Be.Cr tested positive for alkaloids, flavonoids, tannins, sterols, terpenes ,phenolic compounds and saponins. Be.Cr (0.01-3.0mg/ml) produced relaxation of spontaneous and K+ (80mM)-induced contractions .The calcium channel blocking (CCB) effect was confirmed when Be.Cr shifted the Ca++ dose-response curves (DRCs) to right similar to verapamil. In isolated rabbit tracheal preparation, it caused inhibition of high K+-induced contractions at low dose(0.03-1.0 mg/ml) and carbachol (1μM)-induced contraction at high dose(0.01-3.0 mg/ml). Verapamil produced similar effect on high K+ and carbachol(1μM)-induced contraction suggestive of bronchodilatory effect mediated possibly through CCB. Be.Cr inhibited ADP-induced platelet aggregation (0.5-1.5 mg/ml) at relatively high concentration than epinephrine induced aggregation (0.125-1.0 mg/ml). The study showed the presence of spasmolytic and bronchodilator activity in dried seed of Blepharis edulis mediated possibly through blockade of Ca++ channels along with antiplatelet activity which provides sound pharmacological basis for its medicinal use in gut motility, respiratory and inflammatory disorders.

Keywords: **Keywords**: e Blepharis edulis, calcium channel blocker, antispasmodic, bronchodilator, and antiplatelet aggregation

Leena and Luna International, **Oyama, Japan.**