

Ethnomedicinal, phytochemical and pharmacological profile of genus *Viola*

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Abstract

The genus *Viola* (Violaceae) consists of approximately 500 species widely distributed throughout the world. In Pakistan, seventeen (17) different species of *viola* are abundantly found. Traditional healers have been patronizing various species of this genus in numerous disorders since time immemorial. Some of them are already validated scientifically such as antifungal antibacterial, antiplasmodial, antihypertensive, antidyslipedimic, anticancer, analgesic, antipyretic, anti-inflammatory, diuretic, anthelmintic, antioxidant, anticancer, anti-HIV and antiasthmatic etc. while many more are still needed to be addressed. Phytochemical-ly, different groups of compounds have been isolated from various species of this genus like cyclotide alkaloids, flavonoids, caffeic acid derivatives, salicylic acid and triterpenoids. Traditional knowledge when tested pharmacologically and phytochemically could provide new effective therapeutic agents.

Keywords: *Viola*; pharmacological; phytochemical

Introduction

The family Violaceae (alternatively known as Alsodeiace or Leoniaceae or Retrosep-alaceae) comprise of twenty genera and about 800 species (Mabberley, 1987). In Pakistan it is represented by 1 genus (*Viola*) and 17 species (Perveen and Qaiser, 2009) as given in Table 1. The plants of this family are perennial herbs or shrubs with simple leaves (alternate or opposite), which are palmate or deep dissected shaped, the flowers are bisexual, zygomorphic or actinomorphic, calyx 5, corolla of 5 petals, anterior petal large and spurred. Androecium of 5 stamens. Gynoecium a compound pistil of 3 united carpals, ovules superior, fruit capsule. The family is of little economic importance (Perveen and Qaiser, 2009).

Members of the genus *Viola*: The genus *Viola* is comprised of more than 500 species, while in Pakistan 17 species are distributed in various localities (Qaiser and Omer, 1985).