

Pharmacognostic, Phytochemical and Ethnomedicinal Review on *Woodfordia fruticosa* (L.) Kurz.

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Woodfordia fruticosa (L.) kurz (Family-Lythraceae) is an important medicinal plant which has proved its potential through multiple disciplines. The plant is shrub with long and spreading branches. Leaf and flower extract of the plant is very effective against different ailments including cancer, leucorrhoea, diabetes, menorrhagia, menstrual and pregnancy related issues. The extract contains different phytochemicals e.g. carbohydrates, alkaloids, tannins, phenols, saponins, flavonoids, steroids, phenols, triterpenoids, carboxylic acid and Quinone. These chemicals have antimicrobial activity against different bacterial strains including *Bacillus subtilis*, *Staphylococcus aureus*, *Escherichia coli*, *Pseudomonas aeruginosa* etc. and fungal species like *Alternaria solani*. The current review describes the ethnomedicinal, phytochemical, pharmacognostic, antioxidant, antimicrobial properties of the plant.

Keywords: *Woodfordia fruticosa*, Ethnomedicinal, Lythraceae, Bacterial strains, *Alternaria solani*, Phytochemicals.

INTRODUCTION

Studies on the relationship between plants and man are in progress throughout the world. Many such research works have been undertaken and being done in India. Traditional healing system plays an important role in maintaining the physical and psychological wellbeing of the vast majority of tribal people (Reddy et al., 2007). Worldwide realization of the medicinal plants in various traditional healing systems of developing countries is increasing. The World Health Organization (WHO) revealed that about 80% of population rely on traditional remedies to treat various ailments.

Woodfordia fruticosa (family Lythraceae) is an important medicinal plant used in Ayurvedic as well as other systems of medicine. It has its different vernacular names. In Hindi it is most popularly known as Dhava, in Marathi it is known as Dhaiti and sanskrit it is known by the name Agniwala. The plant grows up to 3 meter in height with many branches and lanceolate leaves, produces bright red or orange coloured flowers. This plant grows on hills throughout India (Shome et al., 1981). Current review describes different aspects associated with this plant.

A. Pharmacognostic Properties

Macroscopic characters: The morphology of plant is described and leaves have astringent taste and a characteristic odour (Birajdar et al., 2014). The details of flowers, fruit and seeds of the plant are described by Shome et al., (1981), Sharma and Sharma, (2019), Baravalia et al., (2011).

Microscopic characters: Upper epidermis of leaves shows unicellular layer with plenty of trichomes which are of both glandular and non-glandular type. The epidermis has few anomocytic and anisocytic stomata. Lower epidermis is also unilayered with plenty of stomata. Pedicel also contains single layered epidermis with numerous unicellular trichomes. The epidermis is followed by 6-7 layered cortex differentiated into two zones namely outer collenchyma and inner parenchyma. For details please refer to Sharma and Sharma (2019), and Birajdar et al., (2014). Microscopy of stem is also described by Sharma and Sharma (2019).

T.S. of flower stalk shows a thick walled epidermis with thick cuticle. Collenchyma is 2-3



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