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PHYTOCHEMICAL INVESTIGATION, ISOLATION AND CHARACTERIZATION OF BETULIN FROM LEAF OF *GYMNOSPORIA MONTANA*

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ABSTRACT: Ethnomedicinal plant-like *Gymnosporia montana* belonging to the family Celastraceae is commonly known as Vikalo in Gujarat. Ethanomedicinally, fresh leaves of Vikalo are chewed in tribal regions of Gujarat to cure jaundice. Phytochemical screening of the plant showed the presence of phytoconstituents like phenol, flavonoids, alkaloids, triterpenoids, and saponin. The present study was undertaken for Phytochemical Investigation, Isolation and Characterization of Betulin from the leaf of *Gymnosporia montana*. On the basis of characterization studies, the novel compound betulin was isolated by column chromatography; the isolated compound has been evaluated for its physical properties (colour, state, solubility, melting range, and R_f value), which identically resembles the standard betulin.

INTRODUCTION: The use of medicinal plants for the treatment of various diseases is as old as human civilization and has obtained worldwide significance in the primary healthcare system. In spite of their structural complexity and many unknown chemical constituents, they have been frequently prescribed because of their use and efficacy, contributing to the disclosure of their therapeutic properties. Globally, at least 121 chemical substances of known structure are still extracted from plants for use as drugs. Lately, the chemical basis of these plant-derived medicines and their therapeutic efficacies have been the center of attention.

Out of the known 17,000 higher plants in India, 7,600 are known to become medicinal plants and are used in Ayurvedic / other medicinal systems for treatment from ancient times ¹. Therefore, medicinal plants have played a key role in world health. They are distributed worldwide, but they are most abundant in tropical countries. It is estimated that about 25% of all modern medicines are directly or indirectly derived from higher plants ²⁻⁴. Herbal medicine is the oldest form of healthcare known to mankind.

Herbs had been used by all cultures throughout history. According to World Health Organization, medicinal plants are the best source to obtain a variety of newer herbal drugs. About 80% of individuals from developed countries use traditional medicine, which has compounds derived from medicinal plants. Therefore, such plants should be investigated to better understand their properties, safety and efficacy ⁵. Ethanomedicinally, one of the important plants such as

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