

Pharmacognostic, Phytochemical and Antibacterial Activity of *Beaumontia grandiflora*

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Abstract : The current study was conducted to evaluate the pharmacognostic parameters, phytochemical analysis and antibacterial activity of the plant. Microscopic studies were carried out to determine various Pharmacognostic parameters. Section cutting of the leaf was also done. The study of the ariel parts of *Beaumontia grandiflora* resulted in the identification of fatty acids mixture and unsaponifiable matters. For the separation of various constituents of the plant, successive solvent extraction was carried out in a laboratory. Material and Methods: The study was carried out with all three extracts of *Beaumontia grandiflora* i.e. Petroleum ether, Chloroform and Methanol. For the separation of various constituents of the plant, successive solvent extraction was carried out in the laboratory. Raw data containing the measured zones of inhibition in mm was tabulated. Results: The microscopic studies showed the presence of Upper epidermis in surface view, Part of Lamina in section view, cortical parenchyma in longitudinal view, Parenchyma with collapsed tissues, Parenchyma Cells, Epidermal cells with a part of covering trichome, starch granules, reticulated thickened vessels, Transverse Section of leaf of *Beaumontia grandiflora* showed Upper Epidermis, Lower Epidermis, Hairs, Vascular Bundles, Parenchyma. Phytochemical analysis of leaves of *Beaumontia grandiflora* indicates that Alkaloids are present. There is a possibility of the presence of some bioactive components in the crude extracts due to which it shows strong activity. Petroleum ether extract shows a greater zone of inhibition at low concentrations. Conclusion: The alkaloids possess good antibacterial activity so the presence of alkaloids may be responsible for the antibacterial activity observed in the crude organic extract of *Beaumontia grandiflora*.

Keywords : successive solvent extraction, zone of inhibitions., microscopy, phytochemical analysis

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