

Research Paper :

HPTLC- aided phytochemical fingerprint analysis as a tool for evaluation and antiviral activity using HeLa cell cultures of *Bauhinia variegata* plant

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REFERENCES

Bauhinia variegata was investigated for preliminary phytochemical analysis and characterization by various instrumental techniques. Acetone extracts of *Bauhinia variegata* was very good antibacterial activity and also minimum inhibitory concentration of different virus using HEL cell cultures, HeLa cell cultures, and Vero cell cultures but MIC of Herpes simplex - 1 and 2, vaccinia virus, vesicular stomatitis and Herpes simplex-1 (TK ACV¹) were observed very good antiviral activity of *Bauhinia variegata* DMSO extracts and good minimum cytotoxic concentration activity.

Key words : *Bauhinia variegata*, Antiviral activity, Analysis, Phytochemical screening

Bauhinia variegata of caesalpiniaceae family is widely used in vitiated conditions of *Pitta* and *Kapha*, diarrhoea, dysentery, skin diseases leprosy, intestinal worms, tumors, wounds, ulcers, inflammations, scrofula, proctoptosis, haemorrhoids, haemoptysis, cough, menorrhagia and diabetes. The roots and bark are astringent, cooling, constipating, depurative, anthelminitic, vulnerary, anti-inflammatory and styptic.

Antimicrobial activity of seeds proteins of *Bauhinia variegata*¹. Antimicrobial efficacy of leaves extract of *Bauhinia variegata* *in vitro* condition². Trypsin inhibitors from *Bauhinia variegata* seeds³. Anthocynins in *Bauhinia variegata* flowers of West Bengal⁴. Presence of some flavonoids, amino acids, sterols, triterpenoids and anthoynins have been reported from different parts of *Bauhinia variegata* plants⁵⁻⁹. Two new long chain compounds from *Bauhinia variegata* leaves has been reported¹⁰.

Pharmacological activity of *Bauhinia variegata*:

Anti oxidant activity and phenolic contains of Asian vegetables of *Bauhinia variegata* and other *Bauhinia species*¹¹. *Bauhinia variegata* Linn. (caesalpiniaceae), wood deciduous tree has snake-antivenom, antifungal, antitumor, anti-inflammatory and aphrodisiac properties¹².

MATERIALS AND METHODS

Experimental:

The following instrument was used for HP-TLC Screening

– Linowate 5 semi auto application with CAL-MAG software.

- HP-TLC plate: silica gel 60 F₂₅₄ (merck).
- Antioxidant activities of different extracts was recorded on *in vitro* models. Purchased from Himedia ltd. Antiviral activities was done by Rega institute of medical research, Belgium.
- The extract screening for antimicrobial activity on different types of gram + ve and gram – ve strains.
- UV visible spectra are recorded on uv-visible spectro photometer.

Plant materials :

The *Bauhinia variegata* Leaves were collected from the plant growing from patola farmhouse, patan during January month.

RESULTS AND DISCUSSION

The results obtained from the present investigation are summarized below :

Extraction :

Bauhinia variegata leaves collected from patola farmhouse from Patan. The leaves were dried at RT for 45 days. After cursed it. The leaves powder extract in acetone on Soxhlet apparatus for 48 hrs. After collect acetone layer and solvent evaporate under reduced pressure.

Preliminary phytochemical screening :

Phytochemical screening of ABV was carried out for the presence of phenol, tannins, steroids, alkaloids, anthraquinones and flavanoids.