Phytochemical Constituents of the Plant Clematis Gouriana

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ABSTRACT

Plants are a source of large amount of drugs comprising to different group such as anticancer, antimicrobials etc.Alarge number of plants claimed to possess he antibiotic properties in the traditional system and are also used extensively by the tribal people worldwide. The Plant contains Alkaloids, Carbohydrates, Steroids, Saponins, Tanins, flavonoids, Phenolic compounds, and Terpeniods in medicinal plant of clematis gouriana.
Keywords: Antibiotic properties, Alkaloids,

Carbohydrates, Steroids, Saponins.

I .INTRODUCTION

Phytochemistry is in the strict sense of the word the study of phytochemical. These are chemicals derived from plants. In a narrower sense the terms are often used to describe the large number of secondary metabolic compounds found in plants. Many of these are known to provide protection against insect attacks and plant diseases. They also exhibit a number of protective functions for human consumers. Techniques commonly used in the field of photochemistry are extraction, isolation and structural elucidation of natural products, as well as various chromatography techniques. Plant derived substances have recently become of great interest owing their versatile applications.

II.PLANTS PROFILE

ABOUT THE PLANT. ***CLEMATIS GOURIANA***

Family : Ranunculaceae
Sub family: Ranunculoideae
Hindi : Belkum
Kannada : Telajadari
Sanskrit : Morata
Telugu : Pedutivva
Tamil : Attumeesaikodi
Genus : Clematis
Species : Clematis gouriana

Clematis gouriana is a large climber, capable of climbing up tall trees. Stems are brown and grooved. Oppositely arranged leaves are variable - they can be pinnate, 2-pinnate or 3-pinnate. Leaflets are oblong, lancelike, and sharp tipped, toothed, and rounded at the base. Flowers, 1-1.5 cm across, are fragrant, greenish-white, appearing in branched panicles 15-25 cm long. The flowers have four sepals, which look like middle of the flower.

III.EXPERIMENTAL METHODS

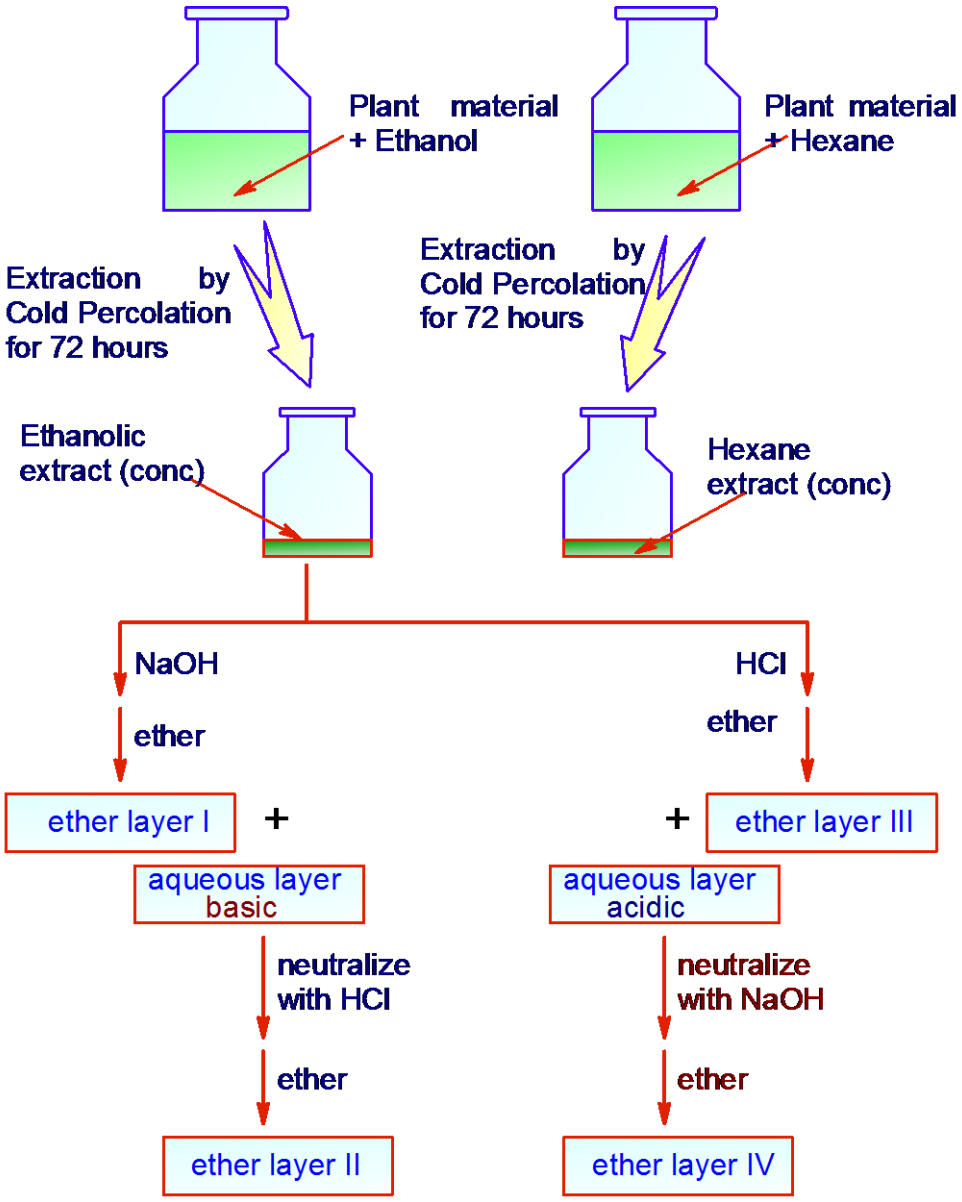
COLD PERCOLATION METHOD

The shade –dried plant material is cut into pieces and packed in a wide-mouthed bottle. (2 lit). The moisture free ethanol is poured into the bottle just to soak the plant material completely. The bottle is closed air-tight and allowed to stand for 72 hours, undisturbed. After 72 hours, ethanol is collected in a pure dry bottle (2 lit). The ethanolic extract is subjected flash-evaporation to get the concentrated extract. The concentrated ethanolic extract is taken for the photochemical screening.

PHYTOCHEMICAL SCREENING:

Phytochemical screening is a process of analyzing the plant constituents with suitable reagents. Based on the response, the plant constituents are confirmed. The ethanolic extract was further extracted with alkali and acid and subsequently extracted with ether to get ether layers I, II, III and IV. These four ether layers were taken for the photochemical screening of polar neutral, acidic and basic compounds. A separate hexane extract was also prepared and tested for the non-polar constituents.

The extraction procedures are given in figure.



IV.Table1: Photochemical screening of the plant Clematis gouriana

S.No	Phytochemicals	Ether Layer I&III	Ether Layer II	Ether Layer IV	Aqueous layer	Hexane extract
1.	**Alkaloids**			(+)	(+)	
2.	**Carbohydrates**	(+)				
3.	**Steroids**	(+)				
4.	**Saponins**	(+)			(+)	
5.	**Tannin**		(-)		(+)	
6.	**Phenolic compounds**		(+)			(-)
7.	**Flavonoids**	(-)	(+)			
8.	**Terpenoids**	(+)				

V. CONCLUSION

This chapter summarizes the findings of the present paper - Photochemical Constituents of the plant Clematis *gouriana such as Alkaloids,Carbohydrates, Steroids,Saponins,Tanins,Phenolic compounds,Flavonoids,Terpenoids.*

The non- polar hexane extract reveals the presence of Oils and Fats on photochemical Screening. The Polar neutral extracts- Ether I and III are analyzed phytochemically to contain Carbohydrates,Steroids,Saponins,Terpenoids.The neutralized alkaline Ether extract-Ether 11 are reveals the presence of Phenolic compounds,Flavonoids on photochemical Screening. The Alkaloids constituents are found to be present in the Ether extract-Ether 1V.The final aqueous extract shows the presence of Tanins, Saponins content on photochemical screening.

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