

Pharmacognostic Evaluation of the Berries Containing Seeds of *Vitis Vinifera* Linn. (VITACEAE)

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Abstract – The berries bearing seeds of *Vitis vinifera* form a prime source of polyphenol compounds. A preliminary phytochemical screening was done to reveal the presence of different phytochemicals like carbohydrates, flavonoids, glycosides, tannins, sterols and fixed oils. The macroscopic and microscopic characters of its seeds was also studied.

Keywords – *Vitis Vinifera*, Phytochemical, Berries Containing Seed, Macroscopic, Microscopic Characters.

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INTRODUCTION

The seeds present in the berries of *Vitis vinifera* (VITACEAE) bear 65 – 70 % polyphenol compounds. (Sonia *et al.* 2015). Most of the polyphenol compounds are monomeric catechin, epicatechin and gallic acid (Vayupharp *et al.* 2012; Adamaz, 2012). The medicinal and nutritional importance of *Vitis vinifera* are well-known all over the world only due to presence of these polyphenolic compounds. Unripe grapes were used to treat sore throats and dried grapes (= berries) called raisins were used to cure constipation and thirst. The ripe sweet grapes were used to treat a range of health problems including cancer, eye infection, kidney and liver diseases.

MATERIALS AND METHODS

Materials :

- Berries with seeds of *Vitis vinifera*
- Hand magnifying lens
- Incubator (Air oven)
- UV light
- Petroleum ether
- Chloroform
- Ethyl acetate
- Methanol
- Spectrophotometer

Methods: The macroscopic characters like shape, colour, texture of seeds were evaluated with the help of hand magnifying lens. For microscopic study the transverse section of seeds was made. Phytochemical analysis:

The seeds were shade dried and powdered for the evaluation of phytochemical screening to determine the presence of carbohydrates, flavonoids, phenolic compounds, glycosides, alkaloids, proteins, amino acids, saponins and resins etc. (Chauhan, 2011; Mukherjee, 2002; Menpara, 2014).

RESULTS AND DISCUSSIONS

The standardization of crude drug forms an integral part of establishing its correct identity. In macroscopic character, the seed shape looks like pear-shaped and exhibits dark brown, with smooth texture and bitter taste.

In microscopic study, the transverse section of seeds exhibits 5 distinct zones i.e. cuticle, epidermis, seed coat, endosperm and embryo. The phytochemical screening (= qualitative) of seeds were performed and entered in table – 1.

Table – 1 : Different phytochemicals and their test results :-

Phytochemical	Pet. Ether	Chloroform	Ethyl acetat
Carbohydrate	-	-	-
Alkaloids	-	-	-
Flavonoids	+	-	+
Glycosides	-	-	-
Tannins	+	-	+
Sterol	+	+	+
Fats and oils	+	+	+

The extractive values give an idea about the chemical constitution of the drug and from the study, the extractive value methanol was found to be highest followed by chloroform.

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