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Research Paper

Phytochemical Screening of Methanolic Extract of Prunus Persica

Clinical Research

KEYWORDS : Prunus persica, phytochemical screening

Talab Hussain	Pest Control & Ayurvedic Drug Research Lab. S.S.L. Jain College Vidisha (M.P.)
Irshad Ahmad Baba	Pest Control & Ayurvedic Drug Research Lab. S.S.L. Jain College Vidisha (M.P.)
S.M Jain	Pest Control & Ayurvedic Drug Research Lab. S.S.L. Jain College Vidisha (M.P.)
Arif Wani	Pest Control & Ayurvedic Drug Research Lab. S.S.L. Jain College Vidisha (M.P.)

ABSTRACT

Herbal medicines are important and the major remedy in traditional system of medicine has been used in medical practices since ancient times. Plants contain phytochemical constituents which are responsible for medicinal activities. In present study methanolic extracts of medicinal plant Prunus persica were assessed for phytochemical components. The results show that the plant extract contained glycosides, flavonoids, saponins and carbohydrates. Tanin and phenolic compounds were present at low quantity. The absences of alkaloids and protein in the extracts were detected. Glycosides were present in low quantity in Prunus persica.

INTRODUCTION:- The peach, *Prunus persica* is native to china and is grown around the world between 25° and 45° latitudes above and below the equator (Childers, 1975) it is cultivated throughout the kashmir valley at an altitude upto 2000m. it grow upto 4-10m tall and 6m in diameter leaves are 7-16cm long and 2-3cm broad the flowers are produced in early spring before the leaves fruit has yellow and whitish flesh seed is red brown oval in shape present inside the flesh. Peach leaves and have been traditionally used for for whoping coughs and bronchitis. Now a day's peach leaves are usually recommended for the treatment of irritated digestive tract its oil is belive to strengthen the growth of hairs. Tea made from Peach leaves is good kidney cleanser. Cooked peach fruit is helpful in releving in stomach ulcers, bowel inflamations and colitis. phytochemicals or the secondary metabolites, play an important role in the biological activities hence, the present study is carried out for preliminary screening of phytochemical components of Methanolic extract of *Prunus persica* . Leaves of *P. persica* have been investigated for their antioxidant (Deb et al., 2010) and anti- inflammatory (Shin et al., 2010) activities in the past. In 1985 Farnsworth et al., identified 119 secondary plant metabolites which were used as drugs. Phytochemicals are known to possess antioxidant (Wong et al., 2009), antibacterial (Nair et al., 2005), antifungal (Khan and Wassilew, 1987), antidiabetic (Singh and Gupta, 2007; Kumar et al., 2008a), anti-inflammatory (Kumar et al., 2008b), radio-protective activity (Jagetia et al., 2005) Leaves of *P. persica* have been investigated for their antioxidant (Deb et al., 2010) and anti- inflammatory (Shin et al., 2010) activities in the past. Due to the medicinal properties of the plants phytochemical screening are necessary and the present study is designed to check the presence of certain phytochemicals.

MATERIALS AND METHODS:-

Collection of plant material:-

Leaves of medicinal plant *Prunus persica* were collected from higher reaches of Gulmarg and Baramulla (J&k) in the month of May-June. The plants were identified at Center for Biodiversity and Taxonomy (CBT) Department of Botany university of Kashmir and the voucher specimen (No.2082-KASH) have been deposited. The leaves parts of the plant were washed with distilled water. The leaves were then allowed to dry in shade at room temperature for about a week. After shade drying leaves were grinded with the help of electric grinder to form powder.

Extraction:-

100 grams of shade dried powder of plant parts was used for extraction with 200ml in methanol for 48hours at 60degree temperature in Soxhlet apparatus. The solvent was removed in rotary evaporator and the crude extracts were dried at room temperature.

Phytochemical screening:- Phytochemical screening tests were performed using aqueous extract to identify various constituents

1. Test for carbohydrates:- 2-3 ml of aqueous extract was added with few drops of alpha nepthol solution in alcohol and add conc. H2SO4 from sides of test tube formation of violetring at the junction of two liquids indicate presence of carbohydrates.

2. Test for Alkaloid:

Mayers test:- 2-3 ml of acqueous extract was added with few drops of mayers reagent formation of precipitates indicates the presence of alkaloids.

Wagners test:- 2-3 ml of aqueous extract was added with few drops wagners reagent formationof brown precipitates will indicates the presence of alkaloids.

3. Test for Tannins: About 2 ml of the aqueous extract was added with few drops 5% Fecl3 formation of deep black colourwas indication of presence of tannins.

4. Test for Saponins: 5 ml of aqueous extract was shaken vigorously with 5 ml of distilled water in a test tube; the formation of stable foam was taken as an indication of the presence of saponins.

5. Test for Flavonoids: To 1 ml of aqueous extract, 1 ml of 10% lead acetate solution was added. The formation of a yellow precipitate was taken as a positive test for flavonoids.

6. Tests for glycosides:

Keller killiani test: 2 ml extract added with glacial acetic acid one drops of 5% fecl3 and H2SO4 reddish brown colour appears at the junction of two liquids upper layer appears bluesh green which indicates presence of glycosides.

Tests for steroids:

Salkowsi reaction:-

A red colour produced in the lower chloroform layer when 2 ml of organic extract was dissolved in 2 ml of chloroform and 2 ml concentrated sulphuric acid was added in it, indicates the presence of steroids. ii. Development of a greenish colour when 2 ml

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of the organic extract was dissolved in 2 ml of chloroform and treated with sulphuric and acetic acid indicates the presence of steroids.

RESULTS AND DISCUSSION:-

Phytochemical screening shows that *Prunus persia* leaves are rich in flavinoids, saponins and carbohydrates as shown in table.1 Saponins are used in hypercholesterolemia, hyperglycemia, antioxidant, anticancer, anti-inflammatory and weight loss etc. Flavonoids are phenolic compounds and plant phenolics are a major group of compounds that act as primary antioxidants or free radical scavengers. Since these compounds were found to be present in the extracts, saponins have hypotensive and cardiodepressant properties. Glycosides are naturally cardioactive drugs used in the treatment of congestive heart failure and cardiac arrhythmia. The preliminary phytochemical tests are helpful in finding chemical constituents in the plant material that may lead to their quantitative estimation and also in locating the source of pharmacologically active chemical compound.

Table.1

S.NO.	Test	Result
1.	Alkaloids	_ _
2.	Carbohydrates	++
3.	Flavinoids	++
4.	Glycosides	+
5.	Proteins	+
6.	Saponins	++
7.	Steroids	++
8.	Tanin	+

++ = strongly present, += slightly present - - = absent

Extractive value of leaves of *Prunus persica* in methanol

Table.2

Plant	Weight of crude extract g/100g	% yield
Prunu spersica	68.418	68.41%

CONCLUSION:- Leaves of prunus persica were used traditionally for the curing of various diseases, like cuts, wound healing, antifungal, anticancer, anti inflammation, stomach ulcers etc. According to this research I have concluded that the leaves of and Prunus persica have rich in secondary metabolites especially flavonoids, saponins which are aboundently present, this plant can be alternative source for ointment and drug, but further studies required for proper drug development.

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