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SURVEY AND USES OF MEDICINAL PLANTS OF FAMILY SOLANACEAE IN KOHISTAN REGION

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Abstract

The family solanaceae very common to our country comprises the plants having mdicinal value.

From the Kohistan region of Dadu District three plants (1) *Datura alba N.* (2) *Solonum nigrum L.* and (3) *Solanum xanthocarpum* Schrad were collected for studies and observed for their medicinal character.

Key Words: Medicinal Plants, Solanaceae Kohistan.

Introduction

Ancient history tells the uses of plants for medicinal purposes. Man has been using the plants as the only source for treating the wounds and all other ailments since the dawn of history or even before that (Kirtikar & Basu, 1935).

In the written record the study of plants dates back over 5,000 years to the Sumerians. The first known Chinese herbal book dates to about 2700 B.C. The Egyptian's before 100 B.C are known to have used garlic opium, castor oil, coriander, mint, indigo and other herbs for medicine, food & dyes. Ancient Greeks and Romans used plants for various purposes such as medicines, symbols and magical/charm, food, seasoning,cosmetics, dyes, room scenters and floor covering. The day to day reality, however changed little before the twentieth century. Plants still provided the basic material for medicine, dyeing and perfuming as well as most of the quack elixir, pills and other preparations (Essam, *et al.* 1996).

The survey of the medicinal plants and drugs of the Pakistan specially the Province of Sindh has been done to some extent in Sindh (Memon and Shahsni, 1988). A recent attempt by S. Baqar on the medicinal and poisonous plants of Pakistan appeared in 1989. Medicinal plants of family Cucurbitaceae of Pakistan (Sadaqat Hamid, A. W. Sabir, 1996). Still the Kohistan region of Sindh remains unsurveyed and great deal remains to be done for the drugs and medicinal plants of Kohistan region.

Kohistan having an area of about 110 square k.m accupies south corner of Pakistan in the Province of Sindh. It is situated between 67.5 to 68.25 east latitude and 25.5 to 26.5 South to North longitude. The area of Kohistan is covered with calcarian rocks of Khirthar ranges of tertiary period sedmimentary hills and patches of agricultural land.

The climatic condition of Kohistan Region is different from South to North. The South portion of this region is pleasant due to see breeze and north part of this region is extreme hot May, June, July are the hottest months. The mean maximum temperature during this period is about 47^0C and 27^0C respectively. December - January – February are the coldest months and maximum and minimum temperrature during this period is about 25^0C & 7^0C respectively. The annual rain fal of

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Kohistan region is 139.00 millimeters. (Farshory, 1962).

To investigate the medicinal plants of this remote rocky area rich in natural vegetation which has been over looked so far; the present investigations are carried out.

Material and Methods

Plants are collected from the study area the sites of collection are:

1. Thano Bola Khan
2. Thano Ahmed Khan
3. Dao Dam area
4. Kerchat
5. Sindh University Jamshoro

The plants were collected dried and pressed for preservating. The samples are kept at the herbarium, Department of Botany University of Sindh, the following data was recorded.

1. Taxonomic character of each plants.
2. Medicinal properties and their local uses.
3. Ethnic name.
4. English name, Botanical name.
5. Flowering period.
6. Soil type
7. Important local Theraupatic usage.
8. Occurance

For the medicinal local usage the Hakims and old wise men were contacted and their statements were recorded, Hakim Soomar Abdullah Burfat Thano Bola Khan. The study was compared and correlated with literature, Indian medicinal plants (Kirtikar and Basu, 1935) and medicinal and poisonous plants of Pakistan by Riaz Baqar (1989).

Results

Family solanaceae is very common in this area. The plants described are available in abundance at Thano Bola Khan, Kerchat and Sindh University Jmashoro.



Datura alba Nees.

DATURA ALBA Nees.

Family : Solanaceae

Ethnic name : Dhatura (Sindhi)
Dhatura (Urdu)

English name : Datura

Flowering period : August, September

Soil type : Calcareous Rock.

Occurance: Common

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TAXONOMIC CHARACTERS

Habitat:

Jamshoro Sindh University, Thano Bola Khan, Kerchat.

Habit

- Annual or biannual Herb 3 meter high
- Leaves angular ovate 10.20 cm long acute subentire
- Flower tubular large white clayxtubular 5cm corolla Funnel shaped.
- Fruit Drooping capsule 3-4 cm in dia seeds, many, exalbuminous.

Medicinal properties

Seeds, leaves and root are given in insanity fever with catarrh, diarrhoea and skin disease an antiseptic dried leaves applied to boil sores rheumatism lumbago sciatica and painful tumers. Juice is administered internally in gonorrhoea Indian medicinal plant (KirtiKar & Basu, 1935).

Chemical composition.

Plant contain Alkaloid

Leaves contain Atropine, vit. C

Seed contain Fixed oil.

Local use

Leaves are used for skin disease, earache, toothache, diarrhoea.



Solanum xanthocorpum **Schrad.**

***SOLANUM XANTHOCORPUM* Schrad.**

Family : Solanaceae

Ethnic name : Kori Kanderi (Janglimetaro)

English name : Indian Solanum

Soil type : Calcareous Rock.

Flowering period : August.

Occurance : Common

TAXONOMIC CHARACTERS

Habitat:

Jamshoro Sindh University, Thano Bola Khan, Thano Ahmed Khan

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Habit

Thorns, more or less prostrate annual. Herb, with star shapes.

- Leaves 5 –10 cm oblong
- Flower 2.5 cm in dia solitary in small.
- Calyx ovate, oblong corolla lobes shallow
- Fruit rounded yellow or whitish with green blotches seed smooth 2mm in diam:

Medicinal properties

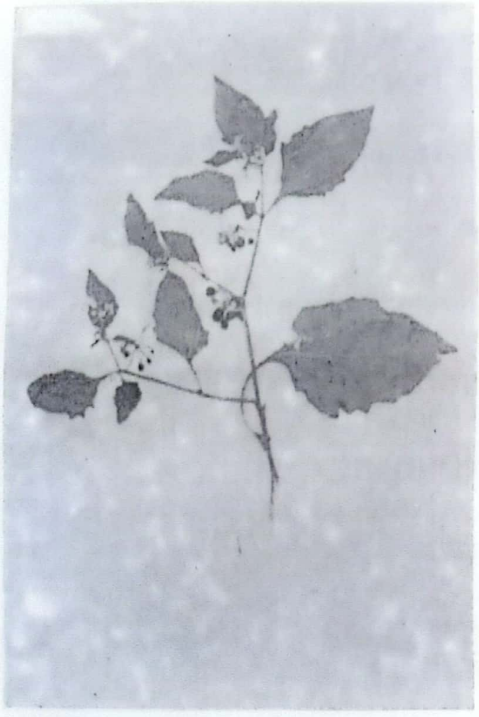
The plant is bitter digestive alterative astringent expectorant aperient diuretic and anthel mintic used in cough asthma, fever, chest pains; juice of berry is useful in sore throat. Indian Medicinal plants (KirtiKar & Basu, 1935).

Chemical composition.

Berries contain Solano carpine and Solano carpidine.

Local use

The fruit used for Asthama, Cough and Chest pain



Solanum nigrum L.

SOLANUM NIGRUM L.

Family : Solanaceae

Ethnic name: Kawal Parro

English name : Black night shade

Soil type : Calcareous Rock

Flowering period : All the year

Disposal of seed : Wind, water

Occurance : Common

TAXONOMIC CHARACTERS

Habitat

Jamshoro Sindh University, Thano Bola Khan, Thano Ahmed Khan

Habit

Perennial erect herbacious 2 to 3 feet tall, week, green branched.

- Leaves simple, alternate, petiolate ovate, toothed 8 cm by 5 cm, a racemose.
- Flower axilary pedicilate, bisexual, 6 mm long calyx saucer shaped, 5 rarely 4 or 6 toothed, teeth blunt 1-2 mm, corolla 5 rarely 4 or 6, in the corolla throat, another unite to form cone, Fruit berry 6-8mm in dim red or black rarely yellow, round, seed 1-2 mm discoid many.

Medicinal properties

Plant is sedative diaphoretic, diuretic alternative expectorant tonic laxative and bydragogue leaves are used as a pouttic over rheumatic and gouty join and skim disease piles gonorrhoea enlargement of spleen and liver hydrophobia. (Riaz Baqar 1989).

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Chemical composition

Berry contain alkaloid solanine and solanidiane, apart from saponin.

Local uses

The fruit is used for asthama.

Discussion

The family Solanceae comprises the most commonly occurring medicinal plants of this area. The *Datua alba* is extensively used plant for its medicinal qualities for skin therapy, ear ache, tooth ache and diarrhoea. (Riaz Baqar, 1989).

Plant *Solanum xanthocorpum* is used for asthma, cough and chest pain. Plant *Solanum nigrum* is used for asthma, enlargement of spleen and liver hydrophobia. (KirtiKar & Basu, 1935).

It was concluded that this medicinal survey will offer basic information to the pharmaceutical industries for further research and discovering new medicinal compounds that could be helpful for the control of many other diseases.

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