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INDIGENOUS KNOWLEDGE OF SOME IMPORTANT WILD PLANTS AS FOLK MEDICINES IN THE AREA OF CHHUCHH (DISTT. ATTOCK) PUNJAB, PAKISTAN

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Abstract

Present work is the study of indigenous knowledge of some wild plants used for medicinal purposes in the area of Chhuchh (Distt. Attock). The area has been rarely visited by plant researchers, so this study mainly focuses on information regarding traditional uses of plants by local people. For each species the information is provided regarding scientific name, english name, local name, medicinal importance.

A total of 50 species belonging to 46 genera of 27 families are reported from this area. During the course of study 12 Hakims (Specialists) and 100 local people were interviewed. The interviews were conducted departing from a general interest in the type of plants used for medicinal purposes. Further questions asked about preparation, seasonal collection times, location and parts of the plants used.

Keywords: Wild medicinal plants, Chhuchh, Attock, Pakistan.

Introduction

The medicine as well as the patient is made up of four elements, air, fire, water and clay, the admixture of these elements generates states which might be temperate (ideal), hot, cold, moist, hot and cold, dry. The state required to keep an individual healthy is the state, of being medically temperate or neutral or ideally temperate. The non-temperate states are excessive heat, excessive coldness, excessive humidity (Said, 1969). The traditional practitioners define life as the union of body, sense, mind and soul and describe positive health as the blending of physical, mental, social, moral and spiritual welfare. This gives new dimensions to the system of health care.

Herbs are remarkable plants, with a rich and fascinating history dating back to thousands of years. The first official records of medicinal plants, set down on Papyrus scrolls and parchments, bear witness to our ancestors, brave experimentation with herbs with potential to kill or cure. Despite such occupational hazards, generations of practicing herbalists built up an admirable corpus of herbal knowledge. (Anna, 1993). Now the herbal medicine is a recognized system of medicine throughout the world. For centuries, plants with medicinal properties have been utilized successfully in the treatment of ailments of varying degrees of severity. The Greek physician, Hippocrates, was quoted as saying in 377 BC, " medicine be you food and food your medicine" and many of the medicinal plants, that he used in his practice are still popular with medical herbalists today (Bartram, 1995).

With the comparatively recent introduction of orthodox medicine, faith in herbal medicine has some what sadly declined. The convenience, which the pharmaceutical industry offered, along with the fast acting, powerful, man-made drugs available, provided an attractive and revered alternative. Unfortunately the

realization that many of these new wonder drugs were actually derived and synthesized from medicinal plants, seems to have been ignored. Today many third world countries are very dependent on plant based remedies, while herbs have provided western medicine with the active ingredients of some of its most important drugs. A simple illustration of synthetic drug versus plant extract is from the common foxglove (*Digitalis purpurea*) from which are derived the heart drugs digoxin and digitoxin. Similarly from opium poppy (*Papaver somniferum*), the valuable pain killers, morphine and codeine, are extracted (Chevallier, 1998).

Pakistan has a varied climate and is quite rich in medicinal herbs, though scattered over a large area. These medicinal plants have been used by Hakims and folklore medicine. 80% of the population lives in villages and rural areas and mostly depend upon Unani System of medicine (Ikram et al., 1978).

There is a dire need to carryout phytochemical and pharmacological work of such useful plants and scientifically prove and substantiate the observations of Hakims and rural people. Keeping in view the significance of indigenous knowledge of folk medicine and ethnobotanical studies to discover new and potential sources of drug plants. It is considered necessary to collect information about the medicinal uses of plants by people of Chhuchh in District Attock because the purpose of present work is to record this informations for wider circulation .This information will contribute significantly, toward the understanding of plant wealth of the country.

Geo-climate of Chhuchh

Location

Chhuchh region is located in northern part of District Attock in Punjab. It is located between longitude 72^0-19^0 and 72^0 – 35^0 east and between latitude 33^0 – 50^0 north to 33^0 – 59^0 north. It is the most fertile area of the district Attock with river Indus flowing in the north of the region. The Chhuchh area is about 19 miles from east to west while 8 miles from north to south including about 84 villages. The only largest town is Hazro which is in the center of this region and is connected by the roads to almost all villages of Chhuchh. River Indus flows along the northern boundary and Attock hills are the western limit. (Census Report 1998).

Climte

The general climate of Chhuchh is pleasant, throughout the year, cool winters and hot summer. The temperature some time rises upto 39 ^{0} C in summer and falls below 27 ^{0} C in winter. June and July are the hottest months and December and January are the coldest months. The average rainfall during the year is about 550mm (22 inches) out of which half is received in winter and the rest in summer. This is the most fertile area of District Attock with very gentle slope. The lands of this area are most fertile having mostly loamy soil. (Sultan, 1986-87).

Methodolgy

In Pakistan what the western world would identify as Herbal medicine is referred to as Unani Medicine. This system of medicine was introduced by the Greco-Arabian society, (Sher, 1998). Pakistan being rich in indigenous herbal resources offers a great scope for ethnobotanical studies. The present enumeration is based on the medicinal importance of 45-50 wild plants in the area of Chhuchh (Distt. Attock) the area was surveyed for three months from Feb. 2001 to April 2001 as per Shinwari and Malik (1989) and Trotter (1981). Frequent field trips were conducted in order to gather the informations. Various interviews were

conducted with elderly person, Herbal doctors, local Hakims, Household ladies and chieftains in different villages of area individually. The plants were collected in wild state from different sites of the area. They were dried, pressed and identified with the help of flora of Pakistan (Stewart, 1972,Nasir Ali, 1971-1995, Nasir and Rafiq 1995).

Confirmation of plants was done in the Herbarium of Quaid–e–Azam University, Islamabad. After identification, the plants were deposited as voucher specimens for further references in the Herbarium of Quaid–e-Azam, University Islamabad.

Result and Indigenous Knowledge of Folk Medicines

A. Amaranthaceae.

1. Botanical Name. = *Achyranthes aspera* linn.
   English Name = Chaff flower or Prickly.
   Local Name = Puthkanda.
   Part used = Roots, leaves and stem.
   Medicinal uses = Decoction in water used for asthma, cough, stomach pain dropsy, piles and skin eruption.

2. Botanical Name = *Amaranthus viridis* Linn.
   English Name = Prince feathers
   Local Name = Chauli
   Part used = Leaves
   Medicinal uses = Emollint, Antidote for scorpion and snake bite, arthritis

B. Asteraceae

3. Botanical Name = *Ageratum conyzoides* linn.
   English Name = Goat weeds.
   Local Name = --
   Part used = Leaves and Inflorescence juice.
   Medicinal uses = wounds, antidote for snakebite.

4. Botanical Name = *Silybum marianum* Linn.

English Name = Milk thistle.
Local Name = Kandiari
Part used = Ripe seeds
Medicinal uses = All liver problems such as cirrhosis, Jaundice, Hepatitis, Cholansitis.

5. Botanical Name = *Xanthium strumarium* Linn.
English Name = Cocklebur.
Local Name = Chhota Dhatura.
Part used = Roots, fruit and Seeds
Medicinal uses = Sedative and diuretic, used in stomach diseases, demulcent and cooling effect given in smallpox and dysentery.

6. Botanical Name = *Calendula arvensis* Linn
English Name = common marigold
Local Name = Zergul.
Part used = Flower .
Medicinal uses = eases myopia, heart diseases, healing the skin

7. Botanical Name = *Cichorium intybis* Linn
English name = Chicory
Local Name = Neeli booti
Part used = Leaves and flowers
Medicinal uses = Used as tonic for liver, in fever, diarrheoa, and enlargment of spleen.

9. Botanical Name = *Helianthus annuns* Linn.
English Name = Sun flower
Local Name = Suraj Mukhi
Part used = Seed oil
Medicinal use = Expectorant, cold and cough. Bronchitis, Malaria, fever.

C. Apiaceae

10. Botanical Name = *Carum copticum* Benth & Hook
    English Name = Bishops weeds
    Local Name = Ajwain
    Part used = Seeds
    Medicinal uses = Digestive ailments, diarrhoea, dysentery, gastritis, Bone fever, abdominal pain

11. Botanical Name = *Anethum Sowa* Linn
    English Name = Dill Weeed
    Local Name = Soai
    Part used = fruit and seeds.
    Medicinal uses = Gastritis, to increase the lactation of cattles, Colic in babies.

D. Asclepiadaceae

12. Botanical Name = *Calotropis procera R.BR.*
    English Name = Wallow wart
    Local Name = Akk
    Part used = Unripend flowers, sometime whole plant.
    Medicinal Name = Gastritis, abdomen diseases, Malsria, Cholera and Asthma.

E. Brassicaeae

13 Botanical Name = *Capsella bursa-pastoris*
    English Nam = Shepherds purse
    Local Name = Not available
    Part used = Seeds.
    Medicinal use = Dropsy, diarrhoea, diuretic, healing of wounds.

14. Botanical Name = *Sisymbrium irio* Linn
English Name = London Rocket
Local Name = Jungli sarron/ khole kalan.
Part used = Leave and seeds.
Medicinal use = Seeds are expectorant, stimulant and have restorative properties, leaves externally used as poultice, throat and chest infection.

F. Canbnalinaceae

Botanical Name = *Cannablis sativa* Linn
English Name = Indian hemp
Local Name = Bhung
Part used = whole plants
Medicinal use = Sedative, intoxicant, antispasmodic, diarrhoea.

G. Caryoplyllaceae

16. Botanical Name = *Stellaria* media
English Name = Chick weed
Local Name = Cheridana
Part used = Green tops and fresh seeds
Medicinal use = Healing, sores, inflammation

17 Botanical Name = *Silene Conoirdea* Linn
English Name = Silene
Local Name = Gulahi Booti / Khash Khashi Booti
Part used = Whole plant
Medicinal use = Plant is emollient, it is used in bath or as fumigant.

H. Convolvulaceae

18. Botanical Name = *Convolvulus arvensis* Linn
English Name = Bind weed
Local Name = lali poli / Hiranpadi

Part used = *whole plant, leaves specially.*

Medicinal use = *Piles, skin wounds, roots are purgative.*

19 Botanical Name = *Cuscuta reflexa Roxb*

English Name = Dodder

Local Name = Akash Bail

Part used = whole plant

Medicinal use = *Diarrhoea and dysentry of Goat and Sheep, baldness in male.*

I. Capparidaciae

20. Botanical Name = *Capparis spinosa* Fork

English Name = Capper plant

Local Name = Karin

Part used = Branches

Medicinal use = Chest pain, general pain, rheumatism.

J. Chenopodiaceae

21. Botanical Name = *Chenopodium album*

English Name = Goose foot

Local Name = Bathu

Part used = whole plant

Medicinal use = Cooling effect, liver diseases, Jaundice.

K. Cyperaceae

22. Botanical Name = *Cyprus rotundus* linn

English Name = Nut grass

Local Name = deella

Part used = whole plant, specially roots.

Medicinal use = It is used to cure chronic sores in children, Abdominal pain.

L. Fumariaceae

23. Botanical Name = *Fumaria parviflora* Hussk

English Name = Fumitory

	Local Name	=	Shatera/ papra
	Part used	=	whole plant
	Medicinal use	=	Blood purification, piles, allergy, diuretic

M. Lamiaceae

24	Botanical Name	=	*Mentha piperita* linn
	English Name	=	Pipermint
	Local Name	=	Sawa podina
	Part used	=	whole plant specially leaves
	Medicinal use	=	Indigestion, headache, antispasmodic, vomiting, abdominal pain.
25.	Botanical Name	=	*Mentha Longifolia* linn
	English Name	=	wild mint
	Local Name	=	Jangli Podina
	Part used	=	whole plant
	Medicinal use	=	Dried leaves are used as stomachache agent, also used as carminative, in diarrhea and dysentery.
26 .	Botanical Name	=	*Salvia Moorcroftiana* well. ExBk
	English Name	=	—
	Local Name	=	Ghoulkund
	Part used	=	Leave sand roots.
	Medicinal use	=	To relieve high fever, skin disease and Injuries

N. Mimosaceae

27.	Botanical Name	=	*Acacia nillotica* wall
	English Name	=	Babul tree
	Local Name	=	Kiker
	Part used	=	Leaves, bark of stem, fruit gum
	Medicinal use	=	Constipation, diarrhoea, dysenetry , Cough, throat diseases.

28. Botanical Name = *Acacia modesta* wall
English Name = not available
Local Name = Phulahi
Part used = Gum
Medicinal use = Aphrodisiac, restorant.

O. Nyctaginaceae

29. Botanical Name = *Mirabilus Jalapa*
English Name = 4 . O' Clock plant
Local Name = Guleabbasi
Part used = Leaves, roots, flower, seeds.
Medicinal use = External application for skin , piles, skin diseases, mild purgative.

30. Botanical Name = *Trianthema monogyna* linn
English Name = Hog weed
Local Name = Itsit
Part used = whole plant
Medicinal use = Diuretic, locative, asthma, jaundice abdominal disease, cure for pain in bladder, Useful for fever.

P. Poacea

31. Botanical Name = *Cynodon dactylon* linn
English Name = Baham grass
Local Name = Khubble grass
Part used = whole plant
Medicinal use = Paste applied externally on eyelids for reducing the redness eye, to relieve the eye pain, skin injuries .

32. Botanical Name = *Avena sativa* linn
English Name = Oat
Local Name = Joundri
Part used = seeds
Medicinal use = Nervous exhaustation, and tension, alergic skin condition.

Q. Papilionaceae

33.	Botanical Name	=	*Medicago sativa linra.*
	English Name	=	Alfalfa
	Local Name	=	Alfalfa
	Part used	=	whole plant
	Medicinal use	=	Urinary problems, tonic for general weakness of body.

R. Rhamnaceae

34.	Botanical Name	=	*Zizyphus nummularia* linn
	English Name	=	Chinese tree.
	Local Name	=	Jangli Berri
	Part used	=	Leaves and fruit.
	Medicinal use	=	Tonic for urinary bladder, hair cleaner, Insomnia.

S. Scrophulariaceae.

35.	Botanical Name	=	*Verbascum thapsus*
	English Name	=	Mullein/ Donkeys ear.
	Local Name	=	Gidder Tambakoo
	Part used	=	Leaves and flowers
	Medicinal use	=	Expectorant, bronchitis, antispasmodic, leaves smoked to ease chest complaints, asthma

T. Scrophulariceae.

36.	Botanical Name	=	*Solanum surratense* schard & Wenal
	English Name	=	Indian Solanum
	Local Name	=	Mohakri
	Part used	=	Fruit and Leaves
	Medicinal use	=	Cough, bronchitis, respiratory trouble abdominal pain, blood purification.

37. Botanical Name = *Solanum nigrum* linn
English Name = Common Night Shade
Local Name = Kachmach / Makko
Part used = Whole plant
Medicinal use = Liver diseases, diabetes, rheumatism , diarrhoea, constipation, piles, skin diseases, heart diseases, expectorant, sedative

38. Botanical Name = *Datrua innoxia* linn
English Name = Devil's apple
Local Name = Aam Dhatura
Part used = whole plants, seeds poisnous
Medicinal use = Narcotic and soamnifera.
leaves are applied for intoxication

39. Botanical Name = *Withania soamnifera*
English Name = winter cherry
Local Name = Asganth / Axaon
Part used = roots and fruits
Medicinal use = Old cough, asthma, gastritis, antispamodic, Abdominal pain

U. Euphorhiaceae

40. Botanical Name = *Euphorbia helioscopia* linn
English Name = Lun spurge
Local Name = Chattri dodak
Part used = Whole plant
Medicinal use = Cathoratic, antihelminthic, purgative.

41. Botanical Name = *Euphorbia hirta* linn
English Name = Doddak
Local Name = Aam dod
Part used = Whole plant
Medicinal use = Expectroant, used in bronchitis, cough, asthma

42	Botanical Name	=	*Ricinus communis*
	English Name	=	Caster
	Local Name	=	Arind
	Part used	=	Seeds and leaves
	Medicinal use	=	Intestinal swelling, injuries, make intestine soft, constipation, jaundice, rheumatic swelling

V. Moraceae

43.	Botanical Name	=	*Ficus palmat*
	English Name	=	Wild Fig
	Local Name	=	Jangli Anjeer / Khabara
	Part used	=	Fruit and latex
	Medicinal use	=	Expectorant, kidney stones,

W. Polygonaceae.

44.	Botanical Name	=	*Polygonum plebijum R. BR.*
	English Name	=	Polygonum
	Local Name	=	Derank
	Part used	=	Whole plant
	Medicinal use	=	Dried plant used against Pneumonia, root is used in bowl complaints, whole plant is used for Cholera
45.	Botanical Name	=	*Rumex dentatis* linn
	English Name	=	Dock Sorrel
	Local Name	=	Jangli Palak
	Part used	=	Roots
	Medicinal use	=	Skin diseases, cough, anemia, diarrhoea.

X. Runoaceae

46.	Botanical Name	=	*Galium aparine*
	English Name	=	Cleaners
	Local Name	=	Chamuti Booti
	Part used	=	whole plant
	Medicinal use	=	Tonic, Blood Punrifying, Diuretic, Skin Erruption, urinary problems,

Y. Urticaeae

47. Botanical Name = *Urtica pilulifera*
English Name = Stinging Nettle.
Local Name = Bichu Booti/Kharash Booti
Part used = Leaves and roots
Medicinal use = Strengthening and Tonic for whole body asthma, expectroant, kidney and urinary problems.

48. Botanical Name = *Tribulus trestris* linn
English Name = Small calthrops
Local Name = Bhakra
Part used = whole plant
Medicinal use = Cooling effect, diuretic, demulcent, astringent, heart diseases, backach

49. Botanical Name = *Pegnum hermala* linn
English Name = Syrian Due
Local Name = Hermal
Part used = whole plant
Medicinal use = Plants have insectcidal properties, brain tonic, blood purifer. With olive oil for ear diseases, as a remedy for tape worm.

Z. Oxalidaeae.

50. Botanical Name = *Oxalis Corniculata* linn
English Name = Yellow oxalis
Local Name = Khuti mithi booti
Part used = Leaves
Medicinal use = Diarrhoea and dysentry.

Discussion

The area of Chhuchh is very fertile and rich with flora. There are many medicinal plants which are growing naturally in different seasons of the year in this area. The benefits of about 50 wild medicinal plants were studied and described by local people. All these species are the main source of medicine and other requirements of the local communities, because of the shortage of trained manpower and resources, health authorities in Pakistan are not able to provide services to greater part of the rural population. Therefore, the wide spread use of folk herbal remedies appears to be not only a case of preference but also a situation without other native choices. Such a system of medical treatment on which the majority of the population has been relying for generations with considerable success, should not be overlooked for further medical investigation, specially those plants which have not been looked at for medical research, although the same have been in use by local inhabitants over hundreds of years. So the indigenous knowledge, accordingly, continues to provide the building blocks for development in rural communities because the medicinal plants are the precious economic sources of the area and wild plants are used in the crude form locally or collected and transported into the drug markets inside the area and the country.

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