Folkloric medicinal plants of Hingoli district, Maharashtra

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The present paper deals with the study of plants used for ethnomedicinal purposes. Ethnomedicinal data of 30 species belonging to 29 genera of 25 families were collected from rustic people as well as tribes residing and practicing in various areas of Hingoli forest in Maharashtra. The study has brought to light lesser known potential ethno-medicinal plants of therapeutic value to cure various diseases.

Keywords: Ethnobotany, Ethnomedicine, Hingoli district, Maharashtra, Medicinal plants, Tribals.

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Introduction

Hingoli lies at the northern part of Marathwada in the state of Maharashtra. The district is located between 77°11’ East longitude and 19°43’ North latitude and surrounded by Akola and Yeotmal in the North, Parbhani in the West and Nanded in the South-East. Hingoli came into existence as a separate district of Maharashtra from the division of Parbhani district on 1st May 1999. It comprises of 710 villages with geographical area consisting of 4526 sq km out of which 249.39 sq km covered with forest. It is predominantly a tribal region. The rustics and aborigines such as Andha and Bhils are forest dwellers. They practice agriculture, but agricultural products are not sufficient for their sustenance therefore, they have to be dependent on forest resources. The Hingoli forest is rich in vegetation of medicinal plants. The tribal folk and rustics of the area have been using some selected plants for curing diseases. The knowledge of the use of the plants has been followed traditionally.

Information regarding medicinal uses of plants of Hingoli district is less¹ and it is still ethnobotanically under exploration. The present study is a contribution to the knowledge of traditional uses of medicinal plants of this region. The study has also been compared with important published literature²⁻⁵.

Methodology

Ethnobotanical surveys were conducted during June 2007 to March 2009 in tribal dominated and rural areas of Hingoli district. Authors collected data on folk medicinal plants used by tribal and rural people for curing diseases (Plate 1). These observations are based on interviews with elderly tribal men, women and knowledgeable persons, who are practicing herbal therapy and are much familiar with forest areas. Such information was verified in different seasons and areas of the taluka in subsequent visits. Identification of the collected plants was done by using renowned floras⁶⁻⁸. The voucher specimens were deposited in Department of Botany, Dnyanopasak College, Parbhani, Maharashtra. Plant species have been enumerated alphabetically with their scientific name, vernacular name, family name, herbarium specimen number along with their etnomedicinal uses, dosage, duration and formulation.

Enumeration

1. Achyranthes aspera Linn. (Aghada), Family- Amaranthaceae, JUP - 5
   Parts used: Leaf and root.
   Medicinal uses:
   i) Leaf juice is given in headache.
   ii) The local people believe that by keeping a twig of this plant in hairs of women increases labour pains for safe delivery.
   iii) Root paste is given in kidney stone.

2. Acacia nilotica (Linn.) Del. (Babul), Family - Mimosaceae, JUP - 98
   Parts used: Bark, flower and pod.
   Medicinal uses:
   i) 5 flowers are consumed twice a day for two days in measles.

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ii) A spoonful pod powder is given once a day for two days with curd and on third day with rice cooked in milk against dog bite.

iii) A paste of middle layer of bark is applied on skin diseases to cure rickets.

3. *Aegle marmelos* (Linn.) Corr. ex Roxb. (*Bael*),
Family - Rutaceae, JUP - 65
Parts used: Leaf and fruit.
Medicinal uses:
i) Leaf juice is given in diabetes to control blood sugar.
ii) Leaf juice mixed with powder of *Pimpinella anisum* Linn. and lump of sugar is given for regular menses.

iii) Fruit juice is given against dysentery.

4. *Ailanthus excelsa* Roxb. (*Maharuki*), Family - Simaroubaceae, JUP - 78

Parts used: Leaf.

Medicinal uses:

i) Leaf juice is dropped in ear to cure migraine.

ii) Leaf juice is used as an antidote against honey bee sting.

5. *Amaranthus viridis* Linn. (*Matha*), Family - Amaranthaceae, JUP - 38

Parts used: Whole plant, stem, leaf and root.

Medicinal uses: Plant extract is used in fever and fits.

6. *Argemone mexicana* Linn. (*Bilayati*), Family - Papaveraceae, JUP - 86

Parts used: Leaf and root.

Medicinal uses:

i) Leaves are smelted in tetanus.

ii) Leaf juice is used an antidote for scorpion sting.

iii) Root paste is given in malarial fever.

iv) Root paste is applied on chest to cure pain in chest.

7. *Azadirachta indica* A. Juss. (*Neem*), Family - Meliaceae, JUP - 21

Parts used: Leaf and bark.

Medicinal uses:

i) The leaf extract is given orally against jaundice.

ii) Leaf juice is given in fever.

iii) Leaf and bark extract is given to control irregular menses.

iv) Bark paste is used externally in skin diseases.

8. *Bambusa arundinacea* (Retz.) Willd. (*Bamboo*), Family - Poaceae, JUP - 22

Parts used: Stem.

Medicinal uses: Prepare from nodal region of the stem is applied on inflammed finger joints.

9) *Bombax ceiba* Linn. (*Katesawar*), Family - Bombacaceae, JUP - 13

Parts used: Stem bark and flower.

Medicinal uses:

i) Bark paste or extract is applied over forehead to get relief from headache.

ii) The flowers are boiled in ghee, 2-3 drops of this extract is poured in nostrils to control headache and nasal bleeding.

iii) The same recipe is also used to stop the growth of nose bone.

10. *Butea monosperma* (Lamk.) Taub. (*Palas*), Family - Fabaceae, JUP - 8

Parts used: Seed, leaf and flower.

Medicinal uses:

i) The extract of seed is given daily early in the morning to remove intestinal worms in children.

ii) 20 g flower paste is mixed in a glass of water and kept over night, consumed daily to stop white discharge (leucorrhoea) and excessive menses (menstaxis).

iii) Seed paste is applied over head against sunstroke.

11. *Calotropis procera* (Ait.) R.Br. (*Ruchki*), Family - Asclepiadaceae, JUP - 56

Parts used: Latex, seed and leaf.

Medicinal uses:

i) Seed extract is used in cough and fever.

ii) Latex with cow ghee poured in nose to cure migraine.

12. *Cassia fistula* Linn. (*Bahava*), Family - Caesalpiniaceae, JUP - 152

Parts used: Bark and pods.

Medicinal uses- Bark paste is used against skin diseases especially against ringworm.

13. *Cassia sophera* Linn. (*Devtarota*), Family - Caesalpiniaceae, JUP - 29

Parts used: Seed and flower.

Medicinal uses:

i) The powder of seed is used for making refreshing drink like coffee.

ii) Decoction of flower is given once early in the morning for purification of blood.


Parts used: Whole plant.

Medicinal uses: The plant extract is given to remove intestinal worms in children.

15. *Cuscuta chinensis* Lamk. (*Adharwel*), Family - Convolvulaceae, JUP - 30

Parts used: Stem

Medicinal uses: The stem extract or decoction of this plant especially which is grown on *Ziziphus* (Bor) given daily to increase lactation.

16. *Cyperus rotundus* Linn. (*Nagarmotha*), Family - Cyperaceae, JUP - 58

Parts used: Root.

Medicinal uses:

i) Root powder is used in cosmetics to reduce acne.

ii) Root powder used for washing hairs and to remove dandruff.
17. *Erythrina variegata* Linn. (*Pangra*), Family- Fabaceae, JUP - 68
Parts used: Bark and flower.
Medicinal uses:
i) Bark paste is mixed in cow milk and given twice a day to control Minya disease (Rural terminology i.e. a disease in which hands and legs become tough and hard like wood).
ii) Flowers are used to prepare dye.

18. *Ficus religiosa* Linn. (*Pipal*), Family- Moraceae, JUP - 61
Parts used: Stem bark.
Medicinal uses:
i) Bark paste is applied to control rheumatism.
ii) Bark powder is applied on joints to control rheumatic pains.
iii) Bark paste is used in tetanus internally.

19. *Mangifera indica* Linn. (*Amba*), Family- Anacardiaceae, JUP - 16
Parts used: Leaf.
Medicinal uses: Leaves are kept in a glass of water for whole night and then this water is consumed once early in the morning for five days to control body fat.

Parts used: Seed, leaf and root.
Medicinal uses:
i) Leaf juice is applied on infected part of skin to control skin disease. It is also applied on open wound.
ii) Decoction of leaves given orally to control cough and cold.
iii) Leaf juice is given orally in headache.

21. *Opuntia elatior* Mill. (*Nivadung*), Family- Cactaceae, JUP-131
Parts used: Stem.
Medicinal uses:
i) Pulp is given orally to infant in stomachic.
ii) Pulp of stem is applied on swellings of nails (suppurative inflammation at the end of finger or toe). Warm pulp is applied as a plaster on joints to cure rheumatism.

22. *Pergularia daemia* (Forsk.) Choiv. (*Utrand*), Family- Asclepiadaceae, JUP- 9
Parts used: Fruit and leaf.
Medicinal uses:
i) Leaf extract is given against Ague (malaria or intermittent fever).
ii) Leaf juice is given orally against acidity and fever.

23. *Punica granatum* Linn. (*Dalimb*), Family- Punicaceae, JUP - 7
Parts used: Leaf and fruit.
Medicinal uses:
i) The juice of young leaves is given daily to stop leucorrhoea.
ii) Fruit extract is given daily to control asthma.
iii) About two spoonful fruit extract is given early in the morning for seven days to conceive pregnancy.

24. *Psidium guajava* Linn. (*Jamb*), Family- Myrtaceae, JUP - 76
Parts used: Leaf.
Medicinal uses: The juice of young leaves is mixed with water or butter milk and given daily to stop leucorrhoea.

25. *Ricinus communis* Linn. (*Erandi*), Family- Euphorbiaceae, JUP - 11
Parts used: Leaf.
Medicinal uses: Leaf juice is mixed with cow milk and hot quartz is put in it and then drunk it without water and salt to treat jaundice.

26. *Solanum virginianum* Linn. (*Bhuiringani*), Family- Solanaceae, JUP - 72
Parts used: Fruit, root and leaf.
Medicinal uses:
i) Ash of fruit is mixed with mustard oil and applied over affected part of the skin.
ii) Fruit paste is applied over gums against toothache.
iii) Decoction of root is given in cough.
iv) Leaf juice is given to infant to cure stomachic.

27. *Terminalia arjuna* (Roxb.) Wt. & Arn. (*Arjun*), Family- Combretaceae, JUP - 43
Parts used: Stem and bark.
Medicinal uses: The decoction of bark is used to control dysentery.

Parts used: Leaf and stem.
Medicinal uses:
i) Extract of leaves is given orally on chikun guniya, jaundice and enteric fever.
ii) Decoction of stem and leaf is given early in the morning in general weakness.

Parts used: Leaf and fruit.
Medicinal uses:
i) Leaf paste with salt is applied on gums during toothache.
ii) Leaf juice is poured in nostrils to control headache.
iii) The fruit extract taken orally to stop menstaxis.

30. *Zizyphus mauritiana* Lamk. (Bor), Family-Rhamnaceae, JUP - 18

Parts used: Leaf.

Medicinal uses:
i) Chewing of tender leaves is advised to diabetic patient to control blood sugar.
ii) Juice of young leaves is used as an antidote for scorpion sting.

Discussion

In Hingoli region plants are used by the villagers in their routine treatment practices. The authors have gathered the information on thirty plant species under utilization in the medicinal lore of village peoples. The plant specimens and their medicinal uses and ailment for which the particular plant was used are thoroughly cross verified. The present investigation has brought to light certain little known potential ethnomedicinal plants of therapeutic value employed to cure various diseases by rustics of the Hingoli district. Some unlisted usages are as follows: *Achyranthes aspera* twig is used by women to increase labour pains for safe delivery; *Aegle marmelos* leaf juice is used as an antidote against honey bees sting; the flower paste of *Bombax ceiba* is used to stop the growth of nose bone; *Butea monosperma* flower paste is used to stop leucorrhoea and menstaxis; *Cassia sophera* flower is used for purification of blood; *Erythrina variegata* bark paste is used to control minya diseases; *Ficus religiosa* bark powder is used to control rheumatic pains; *Furica granatum* fruit extract is given to conceive pregnancy; *Tribulus terrestris* fruit extract is used to stop menstaxis; and *Zizyphus mauritiana* tender leaves is used to control blood sugar.

Conclusion

Unsustainable use of land resources has serious negative effect on the flora of this region. Sometime, overexploitation of a particular species can also lead to the incidental disappearance of other non-targeted species. The natural plant resources of Hingoli district are very meager and fast disappearing; the public should be made aware of the importance of safeguarding the natural resources of this region. There are a lot to be done in this promising field with the active support of village people so that importance of these economically important plants could be protected and cultivated for the benefit of our future generations.

The native inhabitants of Hingoli district are well-versed with the utilization of plants of their surrounding by trial and error method. These plants may serve as source of some important medicine against some major diseases. Therefore, these tribal claims should be further validated scientifically.

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