



An overview on NEELAKANTHI (*AJUGA BRACTEOSA*) (Wall.Ex.Benth)

Dr Joshi Anita Rupesh¹, Dr Omprakash Sharma², Dr Ritu Sharma³, Dr Sangeeta Kuri

1. P.G. Scholar, Department of Dravyaguna, Sriganganagar College of Ayurvedic Science and Hospital, Sriganganagar
2. Professor & H.O.D. Department of Dravyaguna, Sriganganagar College of Ayurvedic Science and Hospital, Sriganganagar
- 3,4 Assistant Professor, Department of Dravyaguna, Sriganganagar College of Ayurvedic Science and Hospital, Sriganganagar

ABSTRACT

The drug '*Neelkanthi*' taken for present study is a native of sub-Himalayan tract of India and is a folklore medicine. A critical study of the folklore literature has revealed that this knowledge of medicine was acquired by these people because of their struggle for survival in very hard conditions. A large proportion of this knowledge is still unexplored and the drug *Neelkanthi* is one of these drugs which are used as folklore medicine but are still unknown to the Ayurvedic society. Hence this current study has been taken up.

INTRODUCTION

The history of herbal medicine is as old as human civilization. *Veda* are the oldest record of human civilization and we can find description of many plants used as medicines in the *Veda*. Plants were used as medicines not only in India, but also in China, Egypt and Greece before the Christian era. Nature has provided a complete storehouse of remedies to treat all ailments of mankind. The plants are indispensable to man for his life because the important necessities of life like food, clothing and shelter are supplied by plants. The vast knowledge about plants to be used as food and medicine has accumulated over thousands of years as a result of man's struggle for survival. This knowledge has today provided us many effective methods of ensuring health care.

Increasing population, health awareness and increasing side effects of modern medicine are the other factors which have increased the demand of *Ayurveda* medicines all over the world. This has created a great stress over our natural herbal depots.

AIMS AND OBJECTIVES

1. To study the drug *Neelkanthi* from *Ayurvedic* and modern point of view.
2. To analyze the *Rasa-Panchaka* of the drug on the basis of parameters described in the classics.

HISTORICAL ASPECT

The drug '*Neelkanthi*' taken for present study is a native of sub-Himalayan tract of India and is a folklore medicine. A critical study of the *Ayurvedic* literature from different *Veda*, *Samhita* and *Nighantu* was done to find out the description of this plant, but neither this plant nor any other species resembling this could be traced out. The plant has been described by some authors of late 20th century and in some modern books also.

The plant has been described in the following books

1. *Nighantu Adarsh* vol. –2/286

Vaidya Bapa Lalji has described the plant to be having *Tikta* and *Kashay Rasa*. It is useful in fever and is a tonic. He has mentioned it as an aromatic plant.

2. *Nighantu Kalpdrum* - 163

Vaidya Sudarshan Lal Trivedi has described the plant as a blood purifier, diuretic and useful in skin diseases. Also the plant is useful in sexually transmitted diseases and leukoderma.

3. *Shankar Nighantu* - 149

Here *Rajvaidya Shankar Datt Gaur* has described the plant as having bitter taste and a blood purifier. He has described that if some complications arise due to its use then honey should be used as an antidote.

4. *Vanoushadhi Chandrodya* – Vol. 6/126

Vaidya Chandraraj Bhandari has mentioned it as a blood purifier. It is useful in scabies, skin diseases, sexually transmitted diseases, leukoderma, joint pains and in chronic fever. Salt should be restricted during its use.

5. *Medicinal Plants and Minerals of Uttarakhand Himalya* Dr. Maya Ram Uniyal has described the plant to be useful in syphilis and in blood born disorders.

MODERN REVIEW

1. *Wealth of India raw material*, Vol. I – A/121 Plant has been described as astringent, febrifugal, stimulant, aperient, tonic, diuretic and depurative properties and used for the treatment of gout and rheumatism, palsy

and amenorrhoea. It is also used to kill lice. Juice of the leaves is used as a blood purifier and in fever. Powder of leaves is used for burns and boils.

2. Indian Medicinal Plants by Kirtikar and Basu, Vol. III/2027A bitter astringent given in the treatment of fevers, tonic, depurative and used to kill lice.

3. Indian Materia Medica by K.M.Nadkarni, 58Bitter, astringent, diuretic, aperient. Drug is used as a substitute for cinchona.

4. A Dictionary of Economic Products of India, George Watt Vol. I- 1972/153Bitter astringent, nearly inodorous sometimes substituted for cinchona in the treatment of fevers. It is used to kill lice and is regarded as depurative.

5. Flora of British India by Sir J.D.Hooker, Vol. IV 1931- 702

6. Flora of Upper Gangetic Plain, J.F.Duthie, Vol. II 1960/1217. Flora Simelensis By Col. Henry Collett, 1984/4068. Compendium of Indian Medicinal Plants, Vol. 4 by P. Rastogi & B.N.Mehrotra

VERNACULAR NAMES

Acharya Charaka in Ch.Su.1.121 has mentioned that the name and identification of medicinal plants can be known from shepherds, cowherds and local people of that area. One plant is known by different vernacular names in different parts. These vernacular names are very important to understand the morphology and properties of drugs because they signify some of its characters.

The drug *Neelkanthi* is known by following names.

1. *Neelkanthi* - in Hindi
2. *Kauri booti* - Punjabi.
3. *Ratpata* - in parts of *Himachal Pradesh* and in *Uttaranchal*

TYPES OF NEELKANTHI

In modern botanical texts two very common varieties of *Ajuga* are mentioned to be found in sub-himalyan tract known as *Ajuga bracteosa* and *Ajuga parviflora* which resemble closely with one another, but there is no reference of any other variety of *Neelkanthi* in any *Ayurveda* text.

CONTROVERSY ABOUT NEELKANTHI

Two other species have also been given the name *Neelkanthi* .

4. *Polygale crotalarioides* Haem., Family - Polygalaceae It has been mentioned by Dr. P.V. Sharma

5. *Senecio alatus* Wall., Family - Compositae. It has been described by Dr. M.R.Uniyal

But above two plants are entirely different from *Ajuga bracteosa* and hence there is no controversy on the plant, but the name *Neelkanthi* has been given to these species also.

OFFICINAL PART - Entire plant

RASA PANCHAKA OF NEELKANTHI

Rasa Panchaka is the Ayurvedic concept to understand the pharmacodynamics of any drug. The drug *Neelkanthi* is not described in Ayurvedic literature and hence its *Rasa Panchaka* are still unknown. Determination of *Rasa Panchaka* of this drug was one of the aims of present study. While analyzing the *Rasa Panchaka* the parameters laid down in the classics and the observation made during experimental and clinical study were kept in mind and a final decision was made.

DETERMINATION OF RASA

For determination of *Rasa*, *Acharya Charaka* has mentioned in Ch. Su. 26, 71-72 that '*Raso Nipate Dravyanam*' the *Rasa* of a drug can be known when it comes in contact with the *Rasanendriya* (Tongue). The drug was found to have *Tikta Kashay Rasa*

VIPAKA

Acharya Vagbhatta in A. Hi.Su. 9 has stated that *Vipaka* of a substance is the final *Rasa* after digestion. Digestion of *Ahara* takes place in two ways, one is *Avasthapaka* and other is *Nishthapaka*. *Avasthapaka* are the changes at different stages during digestion, but *Nishthapaka* are the changes or transformation in substances which appear at the end of digestive procedure. *Vipaka* is the final *Rasa* at this stage. *Acharya Charaka* has mentioned that usually *Katu*, *Tikta* and *Kashay Rasas* convert to *Katu Vipaka*, *Madhur* and *Lavana Rasa* convert to *Madhur Vipaka* while *Amla Rasa* changes to *Amla Vipaka*. Hence according to above principle we can conclude that the *Vipaka* of *Neelkanthi* is *Katu*.

VIRYA

Acharya Charaka (Ch.Su.26\65) has mentioned that *Virya* is the factor responsible to perform a particular action by a substance. No action can be produced without *Virya*. He has further explained (Ch.Su.26\66) that the *Virya* of a drug can be known by its contact with the body and by the *Karmas* done by the substance when it remains inside the body.

On the basis of *Shastra Pramana* - The *Tikta* and *Kashaya Rasas* present in the drug possess *Sheeta Virya* On the basis of clinical assessment - The drug is *Jvarashamaka* and the symptom of *Daha* was relieved in patients which indicate that the drug has *Sheeta Virya*.

PRABHAVA

Prabhava can be explained as the specific action of a drug. The drug *Neelkanthi* has shown very good effect in *Vicharchika*. It has been found to have *Ruksha* and *Sheeta Gunas* and *Sheeta Virya*. It has dried the *Strava* in patients. But in those patients where *Roukshata* was a symptom, it has again provided relief and has not increased the *Roukshata*. This effect of the drug can be regarded as its *Kushthaghana Prabhava*. It has relieved the symptom of *Kandu* in all patients hence it is also having *Kandughana* property.

TOXICITY

No toxic or adverse effects were found during clinical study, hence this drug is non toxic and is completely safe for medicinal use.

PHARMACOGNOSTICAL STUDY

The plant '*Ajuga bracteosa*' is being used as a folklore remedy and the information about its medicinal use was obtained from people of its native place in *Himachal Pradesh* and *Uttaranchal*. The history of a crude drug reveals information about its introduction to mankind. It gives us the information about its original place of growth and about its medicinal use.

There remains always some difference in anatomical structure of different species under one genus which makes it different from one another as in *Ajuga bracteosa* and *Ajuga parviflora*. This difference may not be always visible with naked eye and microscopic study may be required for this purpose.

TAXONOMIC POSITION

Kingdom - *Plantae*

Division - *Spermatophyta*

Sub-division- *Angiospermae*

Class - *Dicotyledonae*

Sub-Class - *Gamopetalae*

Group - *Bicarpellatae*

Natural order - *Lamiales*

Family - *Lamiaceae*

Genus - *Ajuga*

Species - *bracteosa*

Synonym - *Ajuga remota (Benth)*

CONCLUSION

- The drug *Neelkanthi* is used as a folklore drug in *Himachal Pradesh* and *Uttaranchal*.
- The botanical name of the drug is *Ajuga bracteosa Wall. Ex. Benth.* and it belongs to family *Lamiaceae*.
- The drug has not been described in ancient *Ayurvedic* literature and no work in any *Ayurvedic* institution has been done prior to this.
- The drug is known as *Ratpata* in *Uttaranchal* and *Kauri booti* in *Punjab* and parts of *Himachal Pradesh*.
 - It is used by folklore healers in fever, skin diseases, liver disorders, piles and as a blood purifier.
 - The drug was found to have *Tikta, Kashay Rasa, Ruksha* and *Sheeta Guna, Sheeta Virya* and *Katu Vipaka*.
- The effect of drug is due to its *Tikta and Kashay Rasa* which are described as *Kushthaghana* and *Kandughana*. Also, the drug has an alkaloid and some steroids in it, which are useful in eczema.
- The drug is having immunosuppressive activity which is again helpful to treat *Vicharchika*.
- Before concluding, I would like to suggest that as it is a new subject for study, and the drug has various medicinal uses, so the further work on this subject and other medicinal properties will help to establish this drug in *Ayurvedic* pharmacopoea.

REFERENCES :-

1. Ashtanga Hridaya - Vagbhatta with Commentary Sarvanga Sundari of Arundatta, 1982, Krishan Das Academy, Varanasi.
2. Ashtanga Sangraha - Vagbhatta, edited by Atri Dev Gupt, Chaukhamba Sanskrit Series, Varansi
3. Bhavprakash Nighantu - Bhavmishra, commentary by K.C. Chuneekar, 8th Edition, 1988, Chaukhamba

Orientalia, Varanasi.

4. Bhel Samhita - Commentary by Girija Dayal Shukal , 1st Edition 1959, Chaukhamba Vidya Bhawan , Varanasi.
5. Charaka Samhita - Agnivesh , Vidyotni Hindi Commentary by Pt. Kashi Shashtri & Dr. Gorakh Nath Chaturvedi , 13th Edition 1986, Chaukhamba Sanskrit Series, Varanasi.
6. Charaka Samhita - Ayurved Dipika Commentary by Chakarpani, Chaukhamba Sanskrit Series Varanasi.
7. Charaka Saamhita - Gulabkunvarba Ayurved society, Jamnagar.
8. Chakradatta - Chakrapani Datta, Hindi Commentary by Jagdishwar Prashad Tripathi, 4th Edition 1976, Chaukhamba Sanskrit series, Varanasi.
9. Clinical Pharmacology - Laurence Bennett, 7th Edition, Charchill Living ston, Edinburg.
10. Colour Atlas of Dermatology - L.K. Bhutani, 4th Edition, 1993
11. Compendium of Indian Medicinal Plants - Ram P. Rastogi & B.N. Mehrotra, Central Drug Research Institute, Lucknow.
12. Davidson's Principles and Practice of Medicine, Edited by Edwards Christopher Boucher, 16th Edition 1991, Hongkong.
13. Diseases of the skin - Herbert O. Mackey, 9th Edition 1968, Macmillan & Co., London.
14. Dorland's Pocket Medical Dictionary , 23rd Edition 1983, Oxford and IBH Publishing Co. New Delhi.
15. Dravyaguna Vigyan VOL. 1-5, - Prof. P.V. Sharma, Chaukhamba Bharati Academy, Varanasi.
16. Kashyapa Samhita - Vridha Jeevaka, revised by Vatsya, Vidyotni Hindi Commentary by Satyapal, Chaukhamba Sanskrit Series, Varanasi.
17. Madhava Nidana - Madhavkara, Commentary by Sh. Sudarashan Shastri, 4th Edition 1975, Chaukhamba Sanskrit Series, Varanasi.
18. Medicinal Plants and Minerals of Uttarakhanad Himalaya - Dr. Maya Ram Uniyal, 1997, Vaidyanath Ayurved Research Centre, Patna.
19. Pharmacognosy - C. K. Kokate, A. P. Purohit, S. B. Gokhale, 15th Edition 2000, Nirali Prakashan Pune.
20. Raso Nipate Dravyanam - D. Krishana Murthy, P. G. Thesis 1973-74, Gujarat Ayurved University, Jamnagar.
21. Researches in Ayurveda - M. S. Baghel, 1997 Mridu Publication, Jamnagar.
22. Sushruta Samhita - Hindi Commentary by Kaviraj Ambika Dutt Shastri, 5th Edition 1982, Chaukhamba Sanskrit Series, Varanasi.
23. Text book of Dermatology - Arthur Rook, Wilkinson, Ebling, Champion, Burton, 4th Edition 1987, Blackwell Scientific Publications, Oxford, London.