



Ethno Medicinal Use of a Wild Cucurbit: *Citrullus colocynthis* (Linn.) By Various Rural Communities of Ajmer District (Rajasthan)

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Abstract

Ethno medicinal utilization of plants by various communities of rural people of Rajasthan has much importance in present and past. Lot of work has been done at national and regional level in this area. Rajasthan has great floral diversity with lot of medicinal plant in various regions. This research paper stress on the various use of *Citrullus colocynthis* by the rural communities for treating various ailment. The various plants part used by these communities are mainly root, fruit and seeds.

Keywords

Ethno medicinal, *Citrullus colocynthis*, floral diversity, communities, medicinal plant, ailment.

INTRODUCTION:

India is important biodiversity centre of the world having about 45000 different plant species. Out of these plant about 20,000 having good medicinal value. However, 7000- 7500 plant species are used by traditional communities for treating various ailments.

Most of ethenic groups and tribal communities use *Citrullus colocynthis* for various ailments⁽¹⁾ like – Abdominal pain, chronic open wound, constipation, termination of pregnancy, pimples, dropsy, cough, fever (malaria), stomach ache, diabetes, gastric problem and many others. These medicinal plants make disease free environment to the traditional communities. Various communities adopted these plant medicine in their health care programme⁽²⁾. The world Health Organization has also estimated

that about 80 % of the world population inclined towards traditional medicines for their primary health care⁽³⁾. In India about 2500 plant species from 1000 genera are used commonly by traditional healers⁽⁴⁾. In Rajasthan the plant and their parts which are used in famine conditions as food particularly in desert zone⁽⁵⁾. The plants used for treatment of various ailments at national and international level has been discussed by many scientists mainly in magico – relegious beliefs, rituals, worship by different traditional tribes and rural communities^(6,7,8,9).

Ethno botanical aspect of *Citrullus colocynthis* has been reported in various regions of Ajmer district among different communities mainly including

Kalbeliya, Nat, Banjara, Saansi, Gadia lohar, Meena, Gurjar and Jat. The medicinal use of *Citrullus*

colocynthis by rural people in different parts of Ajmer district is given in table 1.1.

Table 1.1: Traditional medicinal use of *Citrullus colocynthis* with common ailments

Plant part	Method to Use	Ailments
1. Whole fruit	After dried and then mixed with black salt and ajwain	1. Acute stomach ache ⁽¹⁰⁾ 2. Bowel pain
2. Fruit	Dried powder and salt taken with water at sleeping time	1. Urinary disease ⁽¹¹⁾ 2. Rheumatism 3. Constipation
3. Seeds	Seed pulp with luke warm water	1. Malaria ⁽¹²⁾
4. Root	Make brush of root and use daily in morning	1. Cavity of teeth and Pyeria 2. Gum problem
5. Seeds	Oil extracted from seed	1. Hair growth, stop from falling and maintaining them black ⁽¹³⁾ 2. Epilepsy ⁽¹⁴⁾
6. Green leaf	Extract of leaf	1. Healing of wound quickly
7. Fruit	Dried powder and ajwain taken with warm water ½ tea spoon daily	1. Gastric problems
8. Fruit & Root	As an anti – dote	1. Snake bite ⁽¹⁵⁾
9. whole Plant	Extract (50 mg /kg)	1. Control glucose level ⁽¹⁶⁾

STUDY AREA:

Geographically, Rajasthan is the largest state of India lies between 23°3' to 30°12' longitude and 69°30' to 78°17' latitudes. Ajmer is the central part of Rajasthan. It is located in the centre of Rajasthan state between 20°38' to 26°50' N latitude and 73°54' to 75°22' E longitude. Its area is 8481 sq .km having annual rainfall is about 557mm. The varied vegetation of the area includes trees, shrubs, herbs, climbers and green grasses. The average temperature is 24.7° C. The climatic factors responsible for the growth of many vegetation having different medicinal properties.

METHODOLOGY:

The rural population of Ajmer district is about 27.6% of the total population of Rajasthan. This study was based on personal interviews of various ethnic groups of the rural people like village headman, spiritual leader and Vaidya's. During the survey of their localities, daily activities and their ritual ceremonies were well observed. The information has been collected through questionnaire from different areas of district Ajmer and were compared, cross checked and linked to ascertain their validity and integrity. These collected specimens were identified taxonomically by Flora of India⁽¹⁷⁾, Flora of Indian Desert⁽¹⁸⁾. The identification and use of these plants has been done on the basis of local use, discuss with rural ethnic groups and were cross interviewed for final conclusion of the study.

CONCLUSION:

The present study enlightens multiuse of *Colocynthis* plant which has great potential for the treatment of various common ailments. So, it reveals that the rural communities should conserve such plant diversity and transfer this knowledge and experience to new generation for treating their common ailments. The rural people has been used these plant to cure various ailments like stomach ache, rheumatism, constipation, fever, payeria, epilepsy, wound healing, snake bite and other disorders. But these important plant are eroded by various developmental activities. So these plant should be conserved on priority due to its immense medicinal and economical importance.

The government and other NGO's related to conservation of flora and fauna should come forward to preserve such an important medicinal value plants, otherwise they might be at the margin of extinction due to over exploitation.

REFERENCES:

1. Subbu, R. R. Prabh, A.C (2009), Medicinal plant diversity of Virudhnagar district, Tamil Nadu. Current Biotica, 3 (3): 373-385.
2. Singh VK. Relevance of folk medicines in the context of primary health care programm in North India. Proc. Herbal Medicines in primary health care. Lom (West Africa), MC, Geneva 1998;14-19.

3. Fransworth N, the role of ethno pharmacology in drug development, in: *Bioactive Compounds from plants*, edited by D. J. Chadwick & J. Marsh (John Wiley & Sons, New York) 1990,2-21.
4. Chandal KPS, Shukla G, Sharma N. "Biodiversity in medicinal and Aromatic plants in India". *Conservation and Utilization* 1996; 239.
5. King G. 'Notes on vegetables products used as food during late famine in Rajasthan. 'Trans. Bot. Soc. Edinb 1870; 10:198.
6. Jain A, Jain AK. Ethno botanical studies in Rajasthan, India – An overview. *Ethno botany* 2012; 24 (1&2) :59-74.
7. Meena KL, Yadav BL. Some ethno medicinal plants of Rajasthan. In: *Ethno medicinal plants of India*, (Ed. Trivedi, P.C.), Aaviskar, Publisher, Jaipur 2007 ;33-44.
8. Mesnif K, Tekle G, Tesfay T. Ethno botanical study of traditional medicinal plants used by indigenous people of Gemad District, Northern Ethiopiua. *Journal of medicinal plant studies* 2013; 1(4):32-37.
9. Mahmoud T, Gairola S. Traditional knowledge and use of medicinal plants in the Eastern Desert of Egypt: a case study from Wadi El – Gemal National park. *Journal of medicinal plants studies* 2013; 1(6): 10-17.
10. Singh V, Pandey RP. Economic and medicinal plants of Indian desert. In: *Desert resources and technology*, (Ed.) Singh, Alam. vol.1. Jodhpur: scientific publishers 1983;307-368.
11. Kritikar KR, Basu BD. *Indian medicinal plants with illustration, oriental enterptises*, Uttaranchal 2001; 7: 1594 -1598.
12. Ali AAN, Al – rahwai K, Lindequist U. Some medicinal plants used in Yemeni herbal medicinal to treat Malaria. *Afr. J. Trad. CAM.* 2004; 1:72 -76
13. Joshi SG. *Medicinal plants*. Oxford & IBH publishing co. Pvt. Ltd., New Delhi 2000; 491.
14. Dey AC. *India medicinal plant used in Ayurvedic preparations*. Bishen Singh, Mahendra Pal Singh, Dehradun 1980; 202.
15. Tiwari G, Shrivastava DK, Gangrade SK. Status of medicinal plant diversity of Kymore plateau and Satpura hill region of Madhya Pradesh and their utilization in: *Recent progress in medicinal plants volume 7 Ethnomedicine and Pharmacognosy (II)* (Eds. V.K., Singh, J.N., Govil, Hashmi Shamima and Singh Gurdip). Studium press LLC, USA 2003;847
16. Bharate SB, Olier G. *Antidiabetic Medicinal Plants*. In: *Medicinal Plants: Ethnobotanical approach* (Eds.P.C.Trivedi), Agrobios Publisher , Jodhpur 2006; 85-106 .
17. Sharma, B.D. and Balkrishanan, N.P. (1993). *Flora of India* (vol.1-4). Botanical Survey of India, Calcutta.
18. Sebastian, M.K. and Bhandari, M.M. (1984). *Medico ethnobotany of Mt Abu, Rajasthan*. journal Ethnopharmacol, 12:233.