Traditional Healthcare Practices among the Villages of Khirshu, Pauri, Uttarakhand, India

R.K. Joshi

The indigenous knowledge of Vaidyas (the traditional healers) on traditional medicine was carried out among the people of Khirshu, Pauri, Uttarakhand. The results documented 117 plants to assess their therapeutic used for curing 21 diseases in the villages of the block. Leaves, root, fruits, stems and some time whole plant are reported to be used for treatment of various ailments. The knowledge of various medicinal plants being used in confined to vaidyas, it is of utmost importance to document this knowledge for future generation, otherwise it will be lost forever with the death of local healers

Introduction

In India, the knowledge of traditional herbal medicine is synonymous with its rich cultural heritage and has found its mention in Vedic literature, particularly the Rigveda, Charak Samhita and Susruta Samhita. The primitive people acquire knowledge of economic and medicinal properties of many plants by trial and error methods and have extensive knowledge of the properties and use of plant resources prevalent in the nature. Consequently, they become the store house of knowledge of many useful plants. This knowledge was accumulated and enriched, and passed on from one generation to another without any written documents.

The people of the region are rich in ethnobotanical knowledge owing to their close affinity with the surrounding vegetation. Religious inspiration, inaccessibility, and lack of medicinal facilities in these villages seem to be the cause of depending on these medicinal plant species. Traditional system of medicine is a wise practice of indigenous knowledge system, which has saved the lives of poor people in the region. The use method of the plants varies according to the nature of the disease. In some cases most of the plant species are not used alone but are mixed with other herbs in specific amounts.

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Most of the decoctions were made just by crushing the plant parts with the help of the pestle, but some were made by boiling plant parts with water, decanting of the liquid and drinking after cooling. Some plant decoctions were also used directly on the wound or the infected part of the body. Plants are the major ingredients in most of the medical formulations developed by the Vaidya. Generally, the traditional herbal healers or Vaidyas in Uttarakhand State of India are the followers of Ayurveda, “a science of living”. They have discovered a number of plant species for curing different ailments. The various herbal formulations prepared and used by traditional Vaidya must be documented systematically so that the patent drama played with regard to turmeric is not repeated. The ongoing acceptance of Ayurveda in the west can be made useful to popularize the Ayurveda across the globe. It is observed that the Vaidyas are usually unwilling to disclose their knowledge about the uses of different plant species, keeping in mind, improper use of the medicine, fear of over exploitation of plant species and fear of losing their status in the local community. The role of indigenous knowledge is vital in the sustainable living of the tribal community, in view of the fact that replication of modern technologies developed elsewhere has not been successful in the terrain where the tribe live in because of mountain specificities, viz. inaccessibility, fragility, marginality, diversity (heterogeneity), niche (natural suitability) and adaptability.

The traditional Vaidyas are respected by the local community and have considerable influence on health belief and practice. Many Ayurvedic formulations contain about 15 or more secondary plant species that enhance the potency and support the effects of primary plant species. Sometimes, secondary plant species are added to the formulations to counteract any possible adverse side effects from the action of the primary plants. However, many Ayurvedic herbs are prescribed alone to cure different ailments. It is observed that the Vaidyas use whole plant or plant parts for the preparation of medicine, whereas the pharmaceutical industry extract the active ingredients to make plant derived drugs.

Nonetheless, the use of Ayurvedic system of medicine was declined in recent past due to several reasons including the advent and popularity of allopathic system of medicine, low income in this traditional profession and introduction of different conservation policies that restrict the use of natural resources in preparing herbal medicine. This resulted in to the loss of knowledge on many important herbal drugs which were unrecorded and passed through generations by word of mouth from one Vaidya to another. Today about 65% of the Indian population depend on the traditional system of the medicine. The vegetation wealth of the Uttarakhand state of India has received significant attention throughout the ages for curing various chronic human ailments.
According to a recent estimate by the World Health Organization (WHO), more than 3.5 billion people in the developing world still rely on plants as a major component of their health care system particularly those inhabiting the rural and far-flung areas. The uses of plants as sources of herbal medicine are very much prevalent in the traditional health care system as a part of the cultural landscape of many developing countries\textsuperscript{13}.

The traditional systems of medicine like Chinese, Ayurvedic, Unani and Biomedicine are very effective particularly in rural areas for the treatment of various ailments. Today the whole world has become increasingly interested in India Ayurveda and other traditional health care systems. The demand for medicinal plants is increasing in both developing and developed countries as a result of recognition of the non-narcotic nature, lack of side effects and easy availability of many herbal drugs. Nearly 80\% of the total human population still depends upon traditional remedies together with folklore system based mainly on phytotherapy for primary health care need. In many developing countries a large part of the population, especially in rural areas depends mainly on traditional medicine for their primary health care\textsuperscript{14}.

Herbal medicines even today play an important role in rural areas with various locally produced drugs still being used as home remedies for various diseases\textsuperscript{13}. This traditional knowledge of health care systems has started disappearing with the passage of time due to scarcity of written documents and relatively low income or no income to the traditional herbal practitioners (Vaidyas). In the recent past, however, the medicinal plants have regained a fair degree of recognition due to a growing faith in herbal medicines in view of their few or no side effects as compared to allopathic system of medicine which is readily available promising quick relief to the patient\textsuperscript{13}. The loss of traditional knowledge within cultures, in view of the rapid changes undergoing is just as irreversible as the loss of species\textsuperscript{15}. The present study of an attempt to document the indigenous of the local medicinal practitioner known vaidhyas and other knowledgeable people using different plants for different purpose.

**Methodology**

Two different types of data, viz. ethnobotanical and household survey related to questionnaire of plant product consumed/gathered in large scale were collected. Beside, the literature available two basic approaches were carried out to study the ethnobotany\textsuperscript{16-17}. The first approach, which is called interview, involves asking questionnaire about medicinal use of plant for different purposes. The second approach, which is called inventory include collection of plant specimen and then interweaving names and uses.
The popular Vaidyas of the block, Sri Kirti Ram Joshi Village Sumari, Patti Katulsun, Sri Jagdish Prasad Bahuguna Village Molsain and Smt. Nanda Devi Bahuguna Village Koti, Patti Katulsun, Pauri (Garhwal), Uttarakhand were consulted for medicinal uses of the plants and this was checked with different people having knowledge of traditional healthcare.

**Results and Discussion**

The inhabitants of Khirshu block of Pauri Garhwal use a number of medicinal plants for their treatment of various diseases. People preferred to consult with Vadihyas to diagnose their problem, despite of knowing some medicinal plants themselves. A total of 117 plant species used traditionally for 21 diseases were documented in the block. The drugs are prepared mainly in the form of juice, decoction, paste and jam and pills. The vaidyas system of medicine pursues the holistic approach and does not aim to cure only the affected organs alone but aims to find out the origin and the causal factor of the disease in order to eradicate the diseases from the root.

Indigenous formulations prepared and prescribed by vaidyas (Table-1), the local/vernacular name of plant given in parenthesis. All these medicinal plant species collected by local communities from the surrounding areas, forests, and alpine meadows and used them as remedies for various ailments. Methods of using these plants vary according to the nature of disease and knowledge of individuals. Decoction of leaves, stem, fruits, and roots was the dominant form for treatment. Most of decoctions are made just by crushing the plant parts with the help of mortar and pestle but some are made by boiling plant parts (Quath) in water, decanting of the liquid.

It is observed that the Vaidyas are usually unwilling to disclose their knowledge about the uses of different plant species, they do not reveal the method used to prepare ‘magic’ herbal medicine to anyone, even their family members, because they think that if they do, the effectiveness of the medicine will be lost. As a consequence, with the death of the elderly knowledgeable persons in these remote areas, this traditional knowledge could be lost forever. The use of Ayurvedic system of medicine was declined in recent past due to several reasons including the advent and popularity of allopathic system of medicine, low income in this traditional profession and introduction of different conservation policies that restrict the use of natural resources in preparing herbal medicine. This resulted in to the loss of knowledge on many important herbal drugs which were unrecorded and passed through generations by word of mouth from one Vaidya to another.
In nutshell, the knowledge of various medicinal plants being used in confined to vaidyas, it is of utmost importance to document this knowledge for future generation. Thus, the recording of indigenous healthcare system becomes increasingly important and it is hoped that the information will be of use to plan future research in this direction.

References:


**Table 2: Indigenous formulations prepared and prescribed for different ailments by vaidyas of Khirshu, Pauri, Uttarakhand**

<table>
<thead>
<tr>
<th>Botanical Name</th>
<th>Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Fever</strong></td>
<td></td>
</tr>
<tr>
<td><em>Centella asiatica</em> (Brahmi) and <em>Cuscuta reflexa</em> (Amarbel)</td>
<td>Paste of roots applied on head.</td>
</tr>
<tr>
<td><em>Swertia chiraita</em> (chiraita)</td>
<td>Powder of whole plant is taken with water.</td>
</tr>
<tr>
<td><em>Leucas indica</em> (Gooma)</td>
<td>Leaves of Gooma and Chiraita are taken in an equal amount and allowed to boil with water. After filtration, filtrate is taken twice in a day.</td>
</tr>
<tr>
<td><em>Carryopteris foetida</em> (Kervi Red)</td>
<td>The whole plant is turned to powder and given to children.</td>
</tr>
<tr>
<td><em>Euphorbia royleana</em> (sulla)</td>
<td>Root is collected and allowed to be tied to the ear of patient is useful in fever.</td>
</tr>
<tr>
<td><em>Eleusine coracana</em> (Kodyan)</td>
<td>Leaves are grinded to powder and applied on the head of children.</td>
</tr>
<tr>
<td><em>Emblica officinalis</em> (Amra)</td>
<td>Fruits of Amra and <em>Terminalia chebula</em> (Haira) are turned to powder and allowed to take with honey.</td>
</tr>
<tr>
<td><em>Cuminum carvi</em> (Zeera)</td>
<td>Leaves of Zeera, <em>Piper nigrum</em> (Kalimirch), <em>Ocimum sanctum</em> (Tulsi), Haira and <em>Foeniculum vulgare</em> (Saunf) are taken in an equal amount and turned to quath. This quath is given to patient twice in a day.</td>
</tr>
<tr>
<td><strong>2. Cough</strong></td>
<td></td>
</tr>
<tr>
<td><em>Terminalia chebula</em> (Haira) and <em>Terminalia beblerica</em> (Bahera)</td>
<td>Haira, Bahera are grinded to powder and used with boiled water.</td>
</tr>
<tr>
<td><em>Adhatoda vasica</em> (Basinga)</td>
<td>The leave juice of Basinga is extracted and it is given to patient for drink.</td>
</tr>
</tbody>
</table>
| *Leucas indica* (Gooma) | Whole plant of Gooma is collected and then turned to quath is
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<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ocimum sanctum</strong> (Tulsi)</td>
<td>The leaves of <em>Ocimum sanctum</em> (Tulsi), <em>Piper nigrum</em> (Kalimirch) and <em>Zingiber officinale</em> (Adrak) are mixed with honey, then all contents are grinded till a paste is formed and this is taken twice in a day such as cough.</td>
</tr>
<tr>
<td><strong>Babusa arandinacea</strong> (Banslochan)</td>
<td>Mix and are turned to powder. This is taken with boiled water in cough.</td>
</tr>
<tr>
<td><strong>Mesua ferrea</strong> (Nagkesar), <strong>Elattaria cardamomum</strong> (Elyachi bari), <strong>Acorus calamus</strong> (Buch), and <strong>Eulophia dabia</strong> (Mishri)</td>
<td></td>
</tr>
<tr>
<td><strong>Emblica officinalis</strong> (Amra)</td>
<td>Amra, Haira, Bahera, <em>Vitis vinifera</em> (Munnaka) are collected and turned to quath. Root juice of <em>Berberis aristata</em> (Kingore) is extracted and a small amount of Goat milk and sugar is added to it. Now this is mixed with the quath and then given to drink.</td>
</tr>
<tr>
<td><strong>3. Arthritis</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Zingiber officinalis</strong> (Saunth)</td>
<td>Saunth is grinded to powder. 5 gms of this powder is taken with boiled water twice in a day.</td>
</tr>
<tr>
<td><strong>Aconitum baflourii</strong> (Meetha)</td>
<td>The root of Meetha is grinded to paste. This paste is applied to the effective body part of the patient.</td>
</tr>
<tr>
<td><strong>Datura stramonium</strong> (Dhatura)</td>
<td>Leaves of Dhatura, <em>Vitex negundo</em> (Nirgundi), <em>Ricinus communis</em> (Arand) are collected and boiled with water. After cooling it is filtered and filtrate is used for message in night</td>
</tr>
<tr>
<td><strong>Allium sativum</strong> (Lehsun)</td>
<td>Nodes of Lehsun are collected and then fried with oil. This oil is used for message.</td>
</tr>
<tr>
<td><strong>Citrus medica</strong> (Kagji nimbu)</td>
<td>Kagji nimbu is allowed to kept in warm ash. Half of this Kagji is taken twice in a day.</td>
</tr>
<tr>
<td><strong>4. Boils</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Carissa carandas</strong> (Karunda)</td>
<td>Roots of Karunda, <em>Rubus ellipticus</em> (Hinsaar), and leaves of <em>Prunus persica</em> (Aaru) are collected and grinded to paste. This paste is applied to the boil.</td>
</tr>
<tr>
<td><strong>Allium cepa</strong> (Pyaj)</td>
<td>The juice of Pyaj is extracted and applied to the boil.</td>
</tr>
<tr>
<td><strong>Polygonum rumicifolium</strong> (Nirvishi)</td>
<td>Root of Nirvushi is crushed and juice is extracted, then a small amount of Goat milk is added to it. Now this is applied to boil.</td>
</tr>
<tr>
<td><strong>Caropteris foetida</strong> (Karvi)</td>
<td>The whole plant of Karvi is grinded to powder, and then this powder is kept in a cloth and applied on the head is useful in boil on head.</td>
</tr>
<tr>
<td><strong>Cocos nucifera</strong> (Narriyal)</td>
<td>The outermost hairy cover of Narriyal (jata) is kept on fire till ash is obtained. This ash is taken twice in a day with a small amount of butter.</td>
</tr>
<tr>
<td><strong>Cucumis hardwickii</strong> (Elaroo)</td>
<td>The whole plant of Elaroo, root of <em>Amaranthus spinosus</em> (Chauli), <em>Oxalis corniculata</em> (Bhilmori), <em>Triticum vulgare</em> (Gehun) flour, Salt, ash, all are collected and turned to paste. This is applied</td>
</tr>
<tr>
<td><strong>Carryopteris foetida</strong> (Karvi)</td>
<td>The leave juice of Karvi is effective for boil.</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td><strong>5. Diarrhoea</strong></td>
<td></td>
</tr>
<tr>
<td><strong>C. bonduc</strong> (Karunja grass)</td>
<td>It is crushed and juice is extracted. This juice is given to children in Diarrhoea.</td>
</tr>
<tr>
<td><strong>M. viridis</strong> (Podina):</td>
<td>The juice of Podina and Pyaj is extracted and a small amount of black salt is added to it. Now this is given to drink.</td>
</tr>
<tr>
<td><strong>C. medica</strong> (Kagji nimbu):</td>
<td>The juice of Kagji nimbu is extracted then it is mixed with ¼ litre of milk of cow. This is taken twice in a day is helpful in Diarrhoea.</td>
</tr>
<tr>
<td><strong>M. paradisiaca</strong> (Kela):</td>
<td>Vegetable of unripe Kela is useful in curing Diarrhoea with blood.</td>
</tr>
<tr>
<td><strong>P. grantum</strong> (Anar)</td>
<td>The outermost cover of Anar is collected and dried carefully then turned to powder. This powder is taken with mishri.</td>
</tr>
<tr>
<td><strong>6. Abdominal colic</strong></td>
<td></td>
</tr>
<tr>
<td><strong>F. assafoetida</strong> (Hing)</td>
<td>A mixture of water and Hing is allowed to boil till a paste is formed and this paste is applied on the naval part.</td>
</tr>
<tr>
<td><strong>T. ammi</strong> (Ajwain)</td>
<td>Ghee (Cow) is taken in any vessel and kept over fire. Now when it gets warm a small amount of Ajwain, Hing and salt are mixed with it till a paste is formed. This paste is taken daily with boiled water.</td>
</tr>
<tr>
<td><strong>T. ammi</strong> (Ajwain)</td>
<td>Ajwain is taken in any vessel and kept over fire till it gets warm. A small amount of rock salt is mixed with it, and then turned to powder. This powder is taken with boiled water.</td>
</tr>
<tr>
<td><strong>R. hastatus</strong> (Almoru)</td>
<td>The juice from Almoru is extracted and given to drink.</td>
</tr>
<tr>
<td><strong>T. Chebula</strong> (Haira)</td>
<td>Haira, Bahera, Amra are collected and turned to powder. One spoon of this powder is taken with boiled water.</td>
</tr>
<tr>
<td><strong>E. officinalis</strong> (Amra)</td>
<td>Amra and mulaithi are collected and turned to powder. This powder is taken with the juice of satawari.</td>
</tr>
<tr>
<td><strong>R. ellipticus</strong> (Hinsar)</td>
<td>Roots of Hinsar, Almoru are collected and turned to powder. This powder is helpful in curing the disease.</td>
</tr>
<tr>
<td><strong>7. Headache</strong></td>
<td></td>
</tr>
<tr>
<td><strong>C. asiatica</strong> (Brahmi)</td>
<td>The root of Brahmi, Punernava are collected and turned to paste. This paste is applied on the head.</td>
</tr>
<tr>
<td><strong>T. tricuspidata</strong> (Indrayana)</td>
<td>The whole plant of Indrayana is collected and is grinded till the paste is formed. This paste is applied on the head.</td>
</tr>
<tr>
<td><strong>C. procera</strong> (Aak)</td>
<td>Aak root is grinded to powder and is given to patient.</td>
</tr>
<tr>
<td><strong>B. compestris</strong> (Sarson)</td>
<td>Message on head by Sarson oil is helpful in headache.</td>
</tr>
<tr>
<td><strong>C. medica</strong> (Kagji Nimbu)</td>
<td>Some drops of kagji nimbu are mixed with hot water and is given to drink.</td>
</tr>
<tr>
<td><strong>8. Eye Disease</strong></td>
<td></td>
</tr>
<tr>
<td><strong>B. aristata</strong> (Kingore)</td>
<td>The root juice of Kingore is dropped into the eyes.</td>
</tr>
<tr>
<td><strong>A. oblongum</strong> (Kirmoli)</td>
<td>The root juice of Kirmoli is applied to the eyes of patients.</td>
</tr>
<tr>
<td><strong>T. javanicum</strong> (Mameeri)</td>
<td>The root juice of Mameeri is extracted and it is applied on the eyes.</td>
</tr>
<tr>
<td><strong>V. thapsus</strong> (Akalbeer)</td>
<td>The yellow flower juice of Akalbeer is extracted and dropped in</td>
</tr>
</tbody>
</table>
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<table>
<thead>
<tr>
<th>Treatment</th>
<th>Plant/Herb</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>9. Mouth Ulcer</td>
<td><em>L. cephalotes</em> (Goomba)</td>
<td>The leaf juice of Goomba is extracted by means of rubbing by hand. This juice is dropped in the eyes.</td>
</tr>
<tr>
<td></td>
<td><em>C. macrophylla</em> (Daiya)</td>
<td>The root juice of Daiya is applied to mouth.</td>
</tr>
<tr>
<td></td>
<td><em>A. catechu</em> (Katha)</td>
<td>Katha is applied to mouth.</td>
</tr>
<tr>
<td></td>
<td><em>C. macrophylla</em> (Daiya)</td>
<td>The fruit or leaves of Daiya are grinded till a paste is formed. This paste is applied to mouth.</td>
</tr>
<tr>
<td></td>
<td><em>B. wallichiana</em> (Paprekrit)</td>
<td>The seeds of Paprekrit, Daiya, Banslochan, Nagkesar, Karunja are collected and turned to paste. This paste is applied to mouth.</td>
</tr>
<tr>
<td>10. Cold and Fever</td>
<td><em>S. chiraita</em> (Chiraita)</td>
<td>Chiraita, Geloi are mixed with water during night and kept overnight. In the morning the upper aqueous layer is decanted and is allowed to drink one or two glass before meal.</td>
</tr>
<tr>
<td></td>
<td><em>T. cordifolia</em> (Geloi)</td>
<td>The plant Geloi is grinded and then drenched in water for one day and night. After filtration, residue is dried and is given to patient.</td>
</tr>
<tr>
<td></td>
<td><em>U. dioica</em> (Kandali)</td>
<td>The root of Kandali, Brahmii are mixed with Mishri and turned to powder. This powder is allowed to chew.</td>
</tr>
<tr>
<td></td>
<td><em>M. viridis</em> (Podina)</td>
<td>The leave juice of Podina is allowed to drink.</td>
</tr>
<tr>
<td>11. Worm</td>
<td><em>H. eichwaldi</em> (Neelkanthi)</td>
<td>Neelkanthi and Pancreas of Sunla are grinded and then mixed with molten copper. This is used as digestive mixture for children.</td>
</tr>
<tr>
<td></td>
<td><em>W. tinktoria</em> (Indra Jau)</td>
<td>Indra Jau, Keshmeeri, Kesar, Kutki, Daiya, Narriyal are collected in an equal amount and turned to powder. This powder is useful in worm diseases.</td>
</tr>
<tr>
<td></td>
<td><em>C. carvi</em> (Zeera)</td>
<td>Zeera, Karvi, fruits of Kirmoli are collected in an equal amount and turned to powder. This is given to patient with water.</td>
</tr>
<tr>
<td></td>
<td><em>P. Vulgares</em> (Chhemi)</td>
<td>The leave juice of Chhemi is useful in worm.</td>
</tr>
<tr>
<td></td>
<td><em>V. quadrangularis</em> (Harun Jhaar)</td>
<td>The juice of Harun Jhaar is extracted and is allowed to drink.</td>
</tr>
<tr>
<td></td>
<td><em>B. pilosa</em> (Kumrun)</td>
<td>The root of Kumrun, Kalimirch are collected and turned to powder. This is useful in worm.</td>
</tr>
<tr>
<td></td>
<td><em>C. pareira</em> (Pari)</td>
<td>The root juice of Pari is given to children.</td>
</tr>
<tr>
<td></td>
<td><em>A. oblongum</em> (Kirmoli)</td>
<td>The root juice of Kirmoli is extracted and allowed to drink for children.</td>
</tr>
<tr>
<td>12. Tooth diseases</td>
<td><em>X. alatum</em> (Timru)</td>
<td>Timru is used for making twig brush and brushing of teeth by this is useful in toothache.</td>
</tr>
<tr>
<td></td>
<td><em>X. alatum</em> (Timru)</td>
<td>The seeds of Timru, Salt, Haldi are collected and turned to paste. This paste is used to message the effective gum.</td>
</tr>
<tr>
<td></td>
<td><em>P. guajava</em> (Amrood)</td>
<td>The leaves of Amrood are collected and boiled with water, after filtration patient is allowed to rinse the mouth through filtrate.</td>
</tr>
<tr>
<td></td>
<td><em>M. azedarach</em> (Daikan)</td>
<td>The leaves of Daikan are boiled with water. After filtration, patient is allowed to use it as mouthwash with this filtrate.</td>
</tr>
<tr>
<td>13. Burns</td>
<td></td>
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<td>---------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td><em>Musa paradisiaca</em> (Kela)</td>
<td>The leaves of Kela are collected and dried well carefully. The dried leaves are kept over burnt on fire till ash is obtained. The ash is mixed with meetha oil (til oil) and butter to form paste. This paste is applied to effective place.</td>
<td></td>
</tr>
<tr>
<td><em>G. Oppositifolia</em> (Bheemal)</td>
<td>The trunk bark of Bheemal is collected and turned to paste is applied to burnt place.</td>
<td></td>
</tr>
<tr>
<td><em>A. vera</em> (Patangwar)</td>
<td>Patangwar leaves are collected and grind to paste and are applied on burn as such.</td>
<td></td>
</tr>
<tr>
<td><em>P. grantum</em> (Anar)</td>
<td>The leaves of Anar are collected and are turned to paste and are applied to burns.</td>
<td></td>
</tr>
<tr>
<td><em>S. tuberosum</em> (Aalu)</td>
<td>The fresh juice of Aalu is applied to burns.</td>
<td></td>
</tr>
<tr>
<td>14. Piles</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>S. mukorossi</em> (Reetha)</td>
<td>The outer seed cover of Reetha is kept on fire till ash is obtained. This ash is given to lap twice in a day as such.</td>
<td></td>
</tr>
<tr>
<td><em>R. zeylanica</em> (Chitrak)</td>
<td>The root bark of Chitrak and flower of Anar are collected and ground to powder. This powder is allowed to take with buttermilk.</td>
<td></td>
</tr>
<tr>
<td><em>C. sativa</em> (Bhang)</td>
<td>Packet of ground leaves of Bhang is formed and is allowed to tied to anus is useful in swelling and pain.</td>
<td></td>
</tr>
<tr>
<td><em>C. nucifera</em> (Narriyal)</td>
<td>The fibers (jata) of Narriyal are burnt till the ash is obtained and is taken with water.</td>
<td></td>
</tr>
<tr>
<td><em>T. chebula</em> (Haira)</td>
<td>Haira and Bahera are roasted on fire and taken in night with water.</td>
<td></td>
</tr>
<tr>
<td><em>E. royleana</em> (Sulla)</td>
<td>The patient is allowed to take milk of sulla with a small amount of Haldi.</td>
<td></td>
</tr>
<tr>
<td><em>B. compestris</em> (Sarson)</td>
<td>When anus comes out the paste of Sarson oil and salt is applied to anus.</td>
<td></td>
</tr>
<tr>
<td>15. Diabetes</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>A. indica</em> (Neem)</td>
<td>The leaves of Neem, Bel, Tulsi and Jamun are collected in an equal amount and are turned to powder after carefully drying a little of this powder is taken in the morning and in the evening.</td>
<td></td>
</tr>
<tr>
<td><em>T. foenum-graecum</em> (Meithi)</td>
<td>The seeds of Meithi are dried and turned to powder. A little amount of this powder is taken daily.</td>
<td></td>
</tr>
<tr>
<td><em>A. marmelos</em> (Bel)</td>
<td>The leaves of Bel are crushed and juice is extracted. It is given to drink as such.</td>
<td></td>
</tr>
<tr>
<td><em>E. jambolana</em> (Jamun)</td>
<td>The stem of Jamun, Aam and seeds of Kraila are ground and is taken with water 3- 4 times in a day.</td>
<td></td>
</tr>
<tr>
<td><em>C. tamala</em> (Tejpatta)</td>
<td>Tejpatta, Kutki and Chiraita are dried and turned to powder and is taken as such.</td>
<td></td>
</tr>
<tr>
<td>16. Leucorrhoea (white)</td>
<td></td>
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</tr>
<tr>
<td><em>O. sativa</em> (Chawal)</td>
<td>Chawal is cooked and the decoction so obtained is eaten as such.</td>
<td></td>
</tr>
<tr>
<td><em>F. glomerata</em> (Goolar)</td>
<td>The ripe fruit of Goolar are dried and turned to powder and is mixed with the juice of chaulai. A little is taken as such.</td>
<td></td>
</tr>
<tr>
<td><em>A. polygamus</em> (Chaulai)</td>
<td>The juice from the chauli is extracted, and is taken twice in a day.</td>
<td></td>
</tr>
</tbody>
</table>
### Traditional Healthcare Practices among the Villages of Khirshu, Pauri, Uttarakhand, India

<table>
<thead>
<tr>
<th>Plant Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. indica (Neem)</strong></td>
<td>The bark juice of Neem and Zeera are mixed together and is taken in morning and in the evening.</td>
</tr>
<tr>
<td><strong>T. cordifolia (Geloi)</strong></td>
<td>Fresh Geloi Juice is taken with honey twice in a day.</td>
</tr>
<tr>
<td><strong>17. High Blood Pressure</strong></td>
<td></td>
</tr>
<tr>
<td><strong>T. arjuna (Arjun)</strong></td>
<td>The bark of Arjun is grinded and powder is given to patients with water.</td>
</tr>
<tr>
<td><strong>A. cepa (Pyaj)</strong></td>
<td>1-10ml of juice of Pyaj is taken twice in a day viz. in the morning and in the evening.</td>
</tr>
<tr>
<td><strong>C. dactylon (Doob)</strong></td>
<td>The fresh juice of Doob is very effective.</td>
</tr>
<tr>
<td><strong>V. hardwickii (Tagar)</strong></td>
<td>Tagar and Dwalbarua are grinded together till the powder is prepared. Two gms. of this powder are taken with fresh water twice in a day.</td>
</tr>
<tr>
<td><strong>N. jatamansi (Jatamansi)</strong></td>
<td>The stem of Jatamansi is boiled with one glass of water and covered till it cooled. After this it is filtered and filtrate is given to drink in small doses.</td>
</tr>
<tr>
<td><strong>18. Inflammation</strong></td>
<td></td>
</tr>
<tr>
<td><strong>T. portulacastrum (Punernava)</strong></td>
<td>The root juice of Punernava is very effective in curing swelling in liver and eyes.</td>
</tr>
<tr>
<td><strong>P. cerasoides (Panyyan)</strong></td>
<td>The bark of Panyyan and root of Kingore are collected in an equal amount and turned to quath is useful in curing all kind of swelling.</td>
</tr>
<tr>
<td><strong>A. vera (Patangwar)</strong></td>
<td>The vegetable of pulp of fruit of Patangwar is cooked which is given to eat by patient.</td>
</tr>
<tr>
<td><strong>19. Wounds</strong></td>
<td></td>
</tr>
<tr>
<td><strong>L. glutinosa (Maida)</strong></td>
<td>The branches of wood of Maida are collected and after washing carefully it is turned to paste and applied.</td>
</tr>
<tr>
<td><strong>T. portulacastrum (Punernava)</strong></td>
<td>The root juice of Punernava is extracted and allowed either to drink or to apply to wounds.</td>
</tr>
<tr>
<td><strong>M. indica (Aam)</strong></td>
<td>The trunk bark of Aam is collected and paste is prepared by mixing it with Kapoor. This paste is applied to wound.</td>
</tr>
<tr>
<td><strong>C. carandas (Karanda)</strong></td>
<td>The root of Karanda is collected and turned to paste. This paste is applied to wound.</td>
</tr>
<tr>
<td><strong>C. domestica (Haldi)</strong></td>
<td>Haldi (unripe) and Gour are collected and boiled together till a paste is formed. This paste is applied to wound.</td>
</tr>
<tr>
<td><strong>R. hastatus (Almoru)</strong></td>
<td>The juice from the leaves of Almoru and Khagsa is extracted and it is applied.</td>
</tr>
<tr>
<td><strong>V. mungo (Urd)</strong></td>
<td>Urd (Pulse) is grinded to paste and used as plaster.</td>
</tr>
<tr>
<td><strong>E. royleana (Sulla)</strong></td>
<td>Milk of Goat and Sulla are taken in an equal amount and allowed to boil till the paste is formed and is applied.</td>
</tr>
<tr>
<td><strong>20. Retention of Urine</strong></td>
<td></td>
</tr>
<tr>
<td><strong>C. deodara (Deodara)</strong></td>
<td>The wood of Deodara and bark of Kingore are collected and turned to quath. This quath is taken twice in a day.</td>
</tr>
<tr>
<td><strong>C. nurvala-buch (Varun)</strong></td>
<td>The juice of bark of Varun, Pasanbedh, and root of Kaaphal is extracted and it is given to patient.</td>
</tr>
<tr>
<td><strong>C. sativus (Kakri)</strong></td>
<td>The seeds of Kakri are collected and turned to powder. This powder is allowed to take it with the fresh juice of satawari.</td>
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</tr>
<tr>
<td><strong>F. assafoetida (Hing)</strong></td>
<td>Hing and seeds of Kakri are collected and turned to powder. This powder is allowed to put on the naval part.</td>
</tr>
<tr>
<td><strong>C. hardwickii (Elaroo)</strong></td>
<td>The seeds of Elaroo are grinded till a powder is formed. This powder is allowed to kept on naval is very effective in retention of urine.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>21. Jaundice</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>X. xanthocarpum (Bhatkatia)</strong></td>
</tr>
<tr>
<td><strong>T. portulacastrun (Punernava)</strong></td>
</tr>
<tr>
<td><strong>A. aspera (Apamarg)</strong></td>
</tr>
<tr>
<td><strong>S. officinarum (Gunna)</strong></td>
</tr>
<tr>
<td><strong>R. sativus (Mooli)</strong></td>
</tr>
<tr>
<td><strong>T. portulacastrum (Punernava)</strong></td>
</tr>
<tr>
<td><strong>T. cordifolia (Geloi)</strong></td>
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</tbody>
</table>