Traditional medicine in the treatment of gastrointestinal diseases in Upper Assam

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Treatment of diseases with medicinal plants in different ethnic groups of Assam is widespread, because of effectiveness, easy availability, lack of modern healthcare alternatives, cultural preferences and century old association with the plants. The study performed in Dibrugarh district of Upper Assam included interview with 27 traditional practitioners from three different communities, i.e. Deori (8), Muttak (15) and Nepalee (4). The results reveal use of 38 plant species represented by 36 genera and 29 families for the treatment of various gastrointestinal diseases.

Key words: Ethnomedicine, Gastrointestinal disorder, Traditional medicine, Deori tribe, Muttak tribe, Nepalee tribe, Assam

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Treatment of diseases through herbal and other natural organic substances dominated the medical practice for centuries in different ethnic groups living in remote areas of Assam. Their dependence on medicinal plants for the primary healthcare may be due to effectiveness, easy availability, lack of modern healthcare alternatives, cultural preferences and to their century old association with the plants1. Association with the plants helped people to acquire a good amount of information regarding their medicinal use by continuous trial and error method. Such knowledge was gathered by certain group of people like village head and traditional healers, locally known as Bej, Ojha, Baidya, etc. who treated the common people.

Documentation and scientific validation of traditional claims are necessary and may give valuable clues to new drug development. Intensive field surveys among traditional practitioners for ethnomedicinal practices done time-to-time explored the wealth of traditional information for treatment of different diseases2,3. The existing knowledge in a community may reveal inter- or intra-ethnic differences which is probably due to different socio-cultural behavior, availability of the plants in the locality and migration of population from one place to another resulting in spread of folklore knowledge. Therefore, ethnomedical survey among the community may be complementary to the presently available literature. Considering these, the study was undertaken in Dibrugarh district of Upper Assam to have an insight into existing traditional medicinal practices by different communities for the treatment of various gastrointestinal diseases.

Methodology

The study area is located about 25 km from Dibrugarh town towards southwest adjacent to Modhupur Reserve Forest. Local people use locally available herbal medicine to a significant extent for curing diseases. The whole area is adjacent to the forest and traditional practitioners of the area are well versed with the location, availability and uses of medicinal plants.

Information of medicinal plants regarding vernacular name, part-parts used, method of preparation & administration and dose regimen were gathered through a pre-designed questionnaire from the traditional practitioners by personal interview. Plants identified consulting Herbarium of Botany Department, DR College, Golaghat, Assam and other standard published literature were deposited in the Herbarium of Regional Medical Research Centre, NE Region, (ICMR), Dibrugarh, Assam4-8.
Results

Present survey included the interview of 27 traditional practitioners from three different communities, i.e. Deori (8), Muttak (15) and Nepalese (4). It revealed 38 plant species belonging to 36 genera and 29 families being used against different ailments. Altogether 19 types of prescriptions for 6 ailments were recorded. Different formulations were used either as fresh extract, infusion or as a paste for local application or prepared as a stock solution for subsequent uses to get relief from the ailments. In one prescription, use of animal tissue (dried stomach of porcupine with the content) is recorded.

The traditional uses of identified plants are arranged disease-wise. Diseases are kept under broad heading of different systems involved. For each plant species, scientific name, family, vernacular names, plant part/s used, method of preparation, dose, duration and method of administration are also described for the individual disease.

Constipation

Approximately 1 teaspoonful of powered seeds of Bhumura (Terminalia belerica Roxb.) and Silikha (Terminalia chebula Retz.) mixed with about 200 gm ripe fruit of Amita (Carica papaya Linn.) is given in empty stomach in the morning once daily for three days.

Diarrhoea & dysentery

Juice of Amora (Pondias pinnata Willd.) seed, aerial part of Soru manimuni (Hydrocotyle rotundifolia Roxb.), leaves of Tita bahak (Adhatoda vasica Nees.) and tender leaves of Golnemu (Citrus limon Burm.) is taken thrice daily for 2-3 days. Leaf decoction of Mircot (Aristolochia indica Linn.) is taken in empty stomach with an interval 6-8 hrs. Decoction of bark of Silikha (Terminalia chebula Retz.) & keseru (Heteropanax fragrans Seem.), aerial part of Bhebeli lota (Paederia foetida Linn.), root of Chorat (Girardinia zeylanica Decne.) and tender shoots of Modhuri (Psidium guajava Linn.) with Jaluk (Piper nigrum Linn.) is taken at an interval of 5-6 hrs. An infusion of Dhuba lota (Heptapleurum venulosum Seem.) stem, Bongali era (Jatropha curcas Linn.) bark and Jaluk (Piper nigrum Linn.) is taken with little amount of salt to control diarrhoea and dysentery. Juice of tender leaves of Kola jamu (Syzygium cumini (L) Keels.), Mangifera indica Linn. and Modhuri (Psidium guajava Linn. mixed with 1-2 teaspoonfuls of Goat’s milk is given before meal at an interval of 6-8 hrs. Powder made from bark or root bark of Soru Sonborah (Sida cordifolia Linn.), and bark of Areca catechu Linn. is taken at an interval of 5-6 hrs to control diarrhoea and dysentery.

Jaundice

Extract of Mangifera indica Linn. bark and Lajabori (Drymaria cordata Willd.) whole plant along with small amount of lime is given thrice daily in the empty stomach. Decoction of aerial part of Akashilota (Cuscuta reflexa Roxb.), Bormanimuni (Centella asiatica Urban.) and Soru manimuni (Hydrocotyle rotundifolia Roxb.) is given on alternate days in empty stomach till cure. Juice of tender shoots of Phuktula (Melastoma malabathricum Linn.) mixed with about cow milk is prescribed 3-4 times a day in empty stomach for 1-2 days. Root bark decoction of Keseru (Heteropanax fragrans Seem.) and Jaluk (Piper nigrum Linn.) is given thrice daily in empty stomach. Decoction of Tikonibarua (Smilax lanceifolia Roxb.) rhizome, Kordoi (Averrhoa carambola Linn.) fruit and Chorat (Girardinia zeylanica Decne.) root boiled with cow’s milk is administered once a day in empty stomach for three days. Extract of Dooportenga (Bryophyllum calycinum Salisb.) leaves mixed with cow’s milk is administered in empty stomach. An infusion of Jobaphool (Hibiscus rosa-sinensis Linn.) tender shoots, Boga Dabori Bon (Cynodon dactylon Pers.) leaves mixed with a Bhim kol (ripe banana fruit) and candy sugar (50gm) is administered. Decoction of Cynodon dactylon Pers. aerial part mixed with sugar and rice water is administered several times in a day for 3-5 days.

Melaena

In the village, this disease is identified when patient complains about the passage of black coloured stool. To treat, leaves of Miricot (Aristolochia indica Linn.) & Mohaneem (Azadirachta indica A. Juss.) and bark of Arjun (Terminalia arjuna Wight & Arn.) prepared with water in a bamboo internode is prescribed thrice daily till relief.

Abdominal pain

Decoction of tender leaves of Modhuri (Psidium guajava Linn.), Jetuli poka (Rubus moluccanus Linn.) Sookloti (Perilla ocimoides Linn.) & Tongloti (Vernonia volkameriaefolia DC.) and Pitha gooti
(Urena lobata Linn.) root prepared with water in a bamboo internode is administered in empty stomach once daily for 2-3 days.

Peptic ulcer

In the village, the practitioner identify this disease as Gastric, when people come with complains of pain in the upper abdomen, loss of appetite, fullness of abdomen and burning of chest. To treat, leaf decoction of Mohaneem, Tita bahak (Adhatoda vasica Nees.), & Sookloti (Perilla ocimoides Linn.), tender shoots of Jetuli poka (Rubus moluccanus Linn.) & Modhuri, bark of Tita Bhekuri (Solanum indicum Linn.), Soru Manimuni (Hydrocotyle rotundifolia Roxb.) aerial part, Amlokhi (Phyllanthus emblica L.) fruit, seed kernel of Leta Gooti (Caesalpinia bonducella Flem.) and small amount of dried stomach of porcupine, kept in a rack over fire for a long time after the fresh collection is prescribed thrice daily for 5-7 days. Juice extracted from Soru Sonborial (Sida cordifolia Linn.) roots and mixed with old preserved sugar cane juice and candy sugar is given once a day in empty stomach for 7 days.

Discussion

Among the communities, a wealth of traditional knowledge is available for the treatment of wide range of gastrointestinal diseases. Existence of treatment for a large numbers of medical problems may be due to faith and conviction about the treatment process and easy approachability to this kind of treatment. Similar type of information related to human plant interaction for treatment of various diseases in different communities had been reported earlier. Some information recorded in the study particularly for Azadirachta indica A. Juss., Citrus limon Burm., Cynodon dactylon Pers., Hibiscus rosasinensis Linn., Jatropha curcas Linn., Melastoma malabathricum Linn., and Rubus moluccanus Linn. were found to be either not known or little known, whereas Costus speciosus Sm., Cuscuta reflexa Roxb., Mangifera indica Linn., and Psidium guajava Linn. were found to be used by other tribes indicating the authenticity of their usefulness. Pharmaceutical researchers acknowledge that screening plants on the basis of information derived from traditional knowledge saves time and resources. Therefore, detailed studies on these folklore claims regarding validation, isolation of active principles, pharmaco-toxicological test and clinical trials to assess efficacy and safety of uses are required. These may bring to light new drugs of herbal origin. Moreover, there is an urgent need to conserve such plants with high medicinal value to ensure their existence and survival against massive, indiscriminate deforestation.

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