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Ethnomedicinal plants used by the tribals of district Sabarkantha, Gujarat, India

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Abstract

Ethnobotany is a distinct branch of natural science dealing with various aspects such as medicine, religious, cultural, agricultural instruments and several others disciplines. The ethnomedicinal plant survey was carried out during 2012-14 to document the folk medicinal plants used by tribes residing in villages of Sabarkantha district, Gujarat. Fifteen wild plant species were collected and information on their ethnomedicinal values which are traditionally used as medicines by local people have been documented. The source of information is based on interviews with local Vaidyas, Bhagats and local tribal people of the area.

Keywords: Sabarkantha, Ethnomedicinal plants, Gujarat.

1. Introduction

The Sabarkantha district is situated in the north-eastern part of Gujarat State between 23°03'-24°30' N latitudes, and 72°43'-73°39' E longitudes. The area is undulating terrain of Aravalli hillocks. The forest is mainly of Dry Mixed Deciduous type with rich floristic diversity. The predominant scheduled tribe in the area is Bhil, Dungari Garasia, etc. In the most of the tribal villages, there are usually one/two local practitioners of the traditional medicine, locally known as a 'Bhagat'. These practitioners have acquired the knowledge (mostly oral/non codified) for treating patients, mostly from the elders of the family.

Indigenous medicinal uses in India were recorded by Kirtikar and Basu (1995), the uses of ethnomedicinal plant by Jain (1991) and those in North Gujarat by Bhatt & Sabnis (1987), Punjani (1997,2006).

2. Materials and Methodology

Extensive field trip was conducted during 2010-14, in different places of the study area. The ethnomedicinal information was gathered through interviews and discussion with local informants, bhagats and elder villagers of different localities of the area. Data were recorded on the plants part used, local name(s), process of preparation and mode of administration and dosage. Indigenous traditional practitioners and some knowledgeable tribal informants, who have knowledge about therapeutic values of wild plant species in the treatment of common ailments, were interviewed in the forest and in their homes.

3. Enumeration

The collected plant specimens were identified using 'Flora of Gujarat State' (Shah, 1978) and arranged according to Bentham and Hooker's system of angiospermic classification with ethnomedicinal uses were described below.

1. *Cissampelos pareira* L. (Menispermaceae) 'Venivel, Pahadvel'

Parts Used: leaves

The lukewarm boiled leaves spread over affected parts and tied with cloth twice a day for 2 days to cure swelling.

2. *Casearia elliptica* Willd. (Flacourtiaceae) 'Munjaj, Munj'.

Parts Used: leaves

Boiled leaves in lukewarm condition are spread over affected area and then bandaged once at night for 2-3 days to get relief from contusim (mudhmar).

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3. *Helicteres isora* L. (Sterculiaceae) 'Maradsing' [7, 18].

Parts Used: Fruit

5-10 g fruit crushed and mixed with half cup of water. The mixture is filtered and then filtrate given orally twice a day for 2-3 days to cure diarrhoea.

4. *Ziziphus mauritiana* Lam. (Rhamnaceae) 'Deshi bordi'.

Parts Used: leaves

About 5-10 fresh leaves are chewed in mouth to make paste and it is applied topically over affected area once a day for 2 days to cure acne.

5. *Alangium salvifolium* (L.f.) Wang. (Alangiaceae) 'Ankol'.

Parts Used: Leaves

Boiled leaves in lukewarm condition are spread over affected area and bandaged with cotton cloth once on alternate day to cure swelling.

6. *Tridax procumbens* L. (Asteraceae) 'Pardeshi bhangro' [2, 3, 9, 14, 16, 17].

Parts Used: Whole plant

The fresh juice of the herb is filled in the fresh cut or/ to stop bleeding / wound to prevent pus formation and for fast healing of the wound.

7. *Madhuca indica* J. F. Gmel. (Sapotaceae) 'Mahudo'

Parts Used: Petals

The lukewarm boiled petals applied topically over fractured bone area and tied with cloth, once a day to cure bone fracture.

8. *Calotropis procera* (Ait.) R. Br. (Asclepiadaceae) 'Akado' [10].

Parts Used: Leaves

The lukewarm heated leaves spread over fore head and bandaged twice a day for till cured to get relief from headache.

9. *Holostemma annularium* (Roxb.) K. Schum. (Asclepiadaceae) 'Ankadodi'

Parts Used: Root

About 5cm piece of fresh root is chewed and the juice is swallowed slowly thrice a day for 2 days to cure cough and cold.

10. *Solanum indicum* L. (Solanaceae) 'Ringni'.

Parts Used: Stem twig

The tender stem twig is used as tooth brush and chewed the juice is swallowed slowly thrice a day till cure to cure dental ache.

11. *Vitex negundo* L. (Verbinaceae) 'Nagod'.

Parts Used: Flower bud

Approximately 500 gm flower buds of this plant is boiled (one hours) with 1 litre water in soil pot till it convert in to 500 ml, then cooled, This mixture is filtered and put in bottle, one cup filtrate is given orally once daily in morning for one 5 days to cure to get relief from bodyache.

12. *Ocimum basilicum* L. (Lamiaceae) 'Maruo, Damro' [4, 5, 13].

Parts Used: Leaves

The leaf juice is dropped into ear tube to get relief from ear pain.

13. *Plantago ovata* Forsk. (Plantaginaceae) 'Ghoda jiru'.

Parts Used: Seed

One teaspoon powdered seed is mixed with 100 g curd. The

mixture is given orally once daily early in morning for two days to cure diarrhoea.

14. *Ricinus communis* L. (Euphorbiaceae) 'Aeranda'

Parts Used: Seed oil

About 100 g seed oil of the plant mixed with 20 g wax and then boiled to get an ointment. The ointment is filled in cracked heel of the foot, once daily at night after washing affected area with fresh water, till cured to heal the cracks fast and to reduce pain.

15. *Holoptelea integrifolia* (Roxb.) Planch. (Ulmaceae) 'Kanjo'.

Parts Used: Leaves

The fresh leaves were rubbed with slight water on the stone and paste is prepared and applied topically over infected part on the skin to cure ringworm.

16. *Typha angustata* Bory & Chaub. (Typhaceae) 'Ghabajariu'.

Parts Used: fibers from of the inflorescence

The fibers from of the inflorescence is filled in / sprayed over fresh cuts/wounds for fast healing and to prevent septic. Due to this practice bleeding stops immediately.

4. Result and Discussion

Out of 16 plants species presented in the paper belonging to 15 families of Angiosperms used in the treatment such as body ache, bonefracture, ear pain, diarrhoea, cuts, skin diseases etc. Two plants were from Asclepiadaceae family while remaining 14 families had one plant each.

The tribal people of Sabarkantha district have a vast wealth of plants, which are sources of medicinal compounds. Therefore, more concerted efforts are needed for the documentation of all the tribal medicines and their health practices useful in the treatment of different disorders. The above reported ethnomedicinal plants also require a proper chemical, pharmacological experiments and clinical trials for the validation of the traditional claims.

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