

Diabetes and Tribals of Jharkhand

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Jharkhand a state which has been carved from Bihar in the year 2000 is full of Flora, ranks among the 5 Flora rich state of India. In all the 24 districts of Jharkhand Tribal population is in abundance. In Jharkhand 26.3% populationis of tribals as per the census report of 2001. There are more than 30 Tribal groups among which Santhal, Munda, Oraon, & Kharia are the main populated tribal sects. This huge population is devoid of the basic amenities too, they lack proper Medical facilities too. There are about 45000 plant species & several thousands have been claimed to possess medicinal properties in India. (Grover et. al. 2002)¹.

Tribals mainly depend on Jungle for all their requirements. Among all other needs the medicinal & curative need is mainly fulfilled by Jungle. The traditional knowledge of medicinal plants is passed from generation to generation & from minor ailments to serious diseases, preventive & curative measures are fulfilled by the plant of Jungle, the tribal population knows the medicinal value of most of the plants found in Jungle, the way of administration the way obtaining the plant parts & keeping its chemical property impact is also known by the tribal population. The Ethnic population believes more in its traditional knowledge than the modern allopathic medicine science. In most of the areas the tribals are devoid of basic infrastructures convey health facilities are also not available under these circumstances the tribal population is compelled to thrive & flourish on the Ethnic knowledge of Medicinal plants found in their viscosity. The present work has been carried out to explore the medically tribal areas of Jharkhand State.

Diabetesmellitns is a common & very prevalent disease found in Jharkhand too. It is estimated that 25% of the world population is affected by this disease. It is also estimated that by 2015 India will become the Capital of Diabetes. Diabetes mellitus is the major endocrine disorder, responsible for renal failure, blindness or diabetes cataract (Thylefors 1990)² poor metabolic control increased risk of cardiovascular disease including atherosclerosis & AGE (Advance Glycation End) products (Yokozawa & Nakagawa 2004)³ plants of jungle are used to treat diabetes as number of plants have shown varying degrees of hypoglycaemic & anti hyperglycaemic (Ignacimthu et. al 2006)⁴

Diabetes is caused by the abnormality of carbohydrate metabolism which is linked to low blood insulin level or insensitively of target organs to insulin. However Diabetes can be controlled by proper diet & drug. Plants of Jungle play an important role as alternative medicine due to less side effect & harmful aspects.

Material & Method

The intensive research was carried out in the different remote areas of Jharkhand. In all the 24 districts of Jharkhand specially those areas whose tribal population is dominative, for collection of information on medicinally significant wild plants used by tribal population. A questionnaire was given to patients & the local herbal practitioners, the patients & herbal practitioners were interviewed, A total of 52 plants were identified. All the plant specimens were collected with the help of herbal practitioners. The plants were identified & their taxa were confirmed according to Hooker (1872-1897)⁷ & Haines (1921-1924)⁶.

Table 1: Ethnomedicinal Plants used by Tribals of Jharkhand

Sl. No.	Botanical Name	Common Name	Family	Parts Used
1.	<i>Avena sativa</i> L.	Oat	Poaceae	Seed
2.	<i>Ananas comosus</i> L. Merr	Ananas	Bromeliaceae	Fruit & Stem
3.	<i>Artocarpus heterophyllus</i> Lam.	Kathal	Moraceae	Fruit, Seed & Leaf
4.	<i>Andrographis paniculata</i> (Burm f.)	Kalmegh	Acanthaceae	Whole plant
5.	<i>Areca catechu</i> L.	Supari	Arecaceae	Fruits
6.	<i>Aegle marmelos</i> (L.) Correa	Bael	Rutaceae	Fruit, Leaf & Bark

7.	<i>Annona squamosa</i> L. Sp.	Sharifa	Annonaceae	Seeds, Leaf, & Bark
8.	<i>Azadirchta indica</i> A. Juss	Neem	Meliaceae	Leaf, Seed
9.	<i>Aloe Vera</i> (L.) Burm. F.	GhritKumari	Aloeceae	Leaf
10.	<i>Allium sativum</i> L.	Lehsun	Liliaceae	Bulb
11.	<i>Allium cepa</i> L.	Pyaz	Liliaceae	Bulb, Shoof
12.	<i>Amaranathas</i> <i>caudatus</i>	Chanlai sag	Amaranthaceae	Leaf
13.	<i>Artemisia herba-</i> <i>alba</i> Asso (Med.)	Dragan Herb	Arteraceae	Leaf & Bark
14.	<i>Acaeia arabica</i> (Lam) wild	Babul	Mimosaceae	Seeds.
15.	<i>Abrus precatorius</i> L.	Ghumchi	Fabaceae	Leaf
16.	<i>Aristolo chiaindica</i> L.	Kaletar	Aristolochiaceae	Seed
17.	<i>Brassica olercea</i> L.	Bandh Gobi	Brassicaceae	Flower (Inflorescent)
18.	<i>Brassica juncea</i> (Linn.) Czern	Sarson	Brassicaceae	Seeds
19.	<i>Carica papaya</i> L.	Papaya	Cucurbitaceae	Seed, Fruit
20.	<i>Capsicum annum</i> L.	Chilli	Solanaceae	Seed, Fruit

21.	<i>Citrus aurantium</i> L.	Bitter orange	Rutaceae	Pulp. Peal, Seed
22.	<i>Camellila sinensis</i> L. Kuntze	Chai	Theaceae	Leaves, Pond
23.	<i>Citrus limon</i> L. Brum. f.	Lemon	Rutaceae	Fruit
24.	<i>Catheranthus roseus</i> (L.) G Don	Sadabahar	Apocyanaceae	Leaves, Flower, Root
25.	<i>Caesalpinia bonducella</i>	Kantkaej	Caesalpinaceae	Leaves, Bark
26.	<i>CajanasCajan</i> (L.) Millsp.	Arhar	Papilionaceae	Seed
27.	<i>Casearia escnlenta</i> Roxb.	Spatrangi	Flacourtiaceae	Root
28.	<i>Coccinia indica</i> wt. & Am.	Kundm.	Cacurbitaceae	Fruit
29.	<i>Coriandrum sativum</i> L.	Dhania	Apiaceae	leaf, Shoof, Seed
30.	<i>Cuminum cyminum</i> L.	Celery	Apiaceae	Seed
31.	<i>Dacus carota</i>	Carrot	Apiaceae	Fruit
32.	<i>Dioscorea dumetorum</i> (Kunth) Pax.	Gethi Kanda	Dioscoreaceae	Tuber

33.	<i>Emblica officinalis</i> L.	Amla	Euphorbiaceae	Fruit
34.	<i>Eclipta alba</i> L Hassk.	Bhringraj	Asteraceae	Leaf
35.	<i>Ficus benghalensis</i> L.	Bavyan	Moraceae	Bark, Root Fiber, Leaf, Seed.
36.	<i>Gymnema sylvestre</i> R. Br.	Gurnar	Fabaceae	Leaf
37.	<i>Glycyrrhizae radix</i>	Mulethic	Fabaceae	Root
38.	<i>Helianthus annus</i> L.	Sunflower	Asteraceae	Seeds, Flower
39.	<i>Ipomea batatus</i> (L.) Lam	Shakarkand	Convolvulaceae	Fruit/Tuber
40.	<i>Momordica charantia</i>	Bitter gourd	cacurbitaceae	Fruit
41.	<i>Mangifera indica</i> L.	Mango	Anacardiaceae	Leaf, Bark, Flower, Fruit.
42.	<i>Malus domestica</i> Borkh	Apple	Rosaceae	Fruit, Flower, Bark.
43.	<i>Ocinum Sanctum</i> L.	Tubi	Lamiaceae	Whole plant
44.	<i>Piper nigrum</i> L.	Kali Mirch	Piperaceae	Corns
45.	<i>Punica grantum</i> L.	Anar	Lythraceae	Seeds, Flower
46.	<i>Psidium guajava</i> L.	Guava	Myrtaceae	Fruit
47.	<i>Syzygium cunini</i> (L)	Jamun	Myrtaceae	Fruit, Juice

48.	<i>Swertia chirata</i> L.	Chiraita	Gentianaceae	Whole plant
49.	<i>Trigonella foenum graceaum</i> L.	Methi	Leguminosae	Leaves, Seeds
50.	<i>Tamarindus indica</i> L.	Imli	Caesalpinaceae	Fruit, Leaves
51.	<i>Withania somnifera</i> L. Dn	Ashwagandha	Solanaceae	Leaf, Root, Seed
52.	<i>Tinospora cordifolia</i> micrs	Giloy	Menispermeaceae	leaf
53.	<i>Vinca rosea</i> L.	Sadabahar	Apocynaceae	Leaf, Flower
54.	<i>Zingiber officinale</i> Roscoe	Adrak	Zingiberaceae	Fresh & Dried Rhizomes
55.	<i>Murraya koenigii</i> (L)	Curry patta	Rutaceae	Leaf
56.	<i>Zea mays</i> L.	Makai	Poaceae	Inflorescence
57.	<i>Laurus nobilis</i> L.	Tejpatta	Lauraceae	Leaves, Fruit, Oil.

Results and Discussion:

Diabetes is a wide spreading disease and most of the tribals due to their life style, eating habits and genetic makeup are affected by the disease after a certain age. Jharkhand being rich in Jungle the tribal people have knowledge of plants that cure and prevent Diabetes. In the present paper after survey work of three years, 57 plants have been identified which are used by tribal population to check and cure diabetes.

Some plants are used intact while some plant parts are used. It is worth to say that all plants are having medicinal properties it is our lack of knowledge that we consider some as medicinal.

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