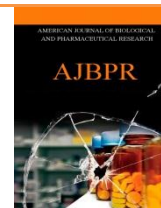




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ETHNOMEDICINAL PLANTS OF JALORE DISTRICT OF RAJASTHAN USED IN HERBAL AND FOLK REMEDIES

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ABSTRACT

The Jalore district a part of Thar Desert is very rich in herbal plant wealth. The herbal plants of this region have great potential to be used in drug and pharmaceutical industries. These herbal plants have been used by local people, tribal communities, vendors, and native doctors such as Ojhas, Bhagats, Bhopas and experts of Ayurvedic fields since long time in herbal and folk remedies. Kalbelia, Nats, Bhils, Meena, Raika, Banjara, Gadolia-Lohar, Kathodia, Damor and Garasia communities of this district have a rich knowledge of plants based traditional medicines. Ethnomedicinal plants like *Actinopteris radiata* (J.Koenig ex Swartz.) Link., *Asparagus racemosus* Willd., *Calotropis gigantea* (Linn.) R. Br., *Cassia auriculata* Linn., *Cassia italica* (Mill.) Lamk. Ex Anders., *Convolvulus arvensis* Linn., *Cuscuta reflexa* Roxb., *Enicostema axillare* (Lamk.) Roynal., *Martynia annua* Linn., *Mitragyna parvifolia* (Roxb.) Korth., *Pedaliium murex* Linn. have been selected for this research work. The present investigation is aimed to create awareness about the ethnomedicinal value of the plants and their uses to draw the attention of pharmacologists, phytochemists and pharmaceuticals.

INTRODUCTION

Arid zone plants of the Indian Thar desert are useful for the welfare of human beings and livestock. The erratic rainfall and poor soil fertility have marked effect on the vegetation of the Indian desert. Despite the prevailing harsh climatic conditions, the Indian Thar desert comprises richest plant diversity among the other desert of the world.

Kalbelia, Nats, Bhils, Meena, Raika, Banjara, Gadolia-Lohar, Kathodia, Damor and Garasia communities of Jalore district of Rajasthan have a rich knowledge of plants based traditional medicines used in herbal and folk remedies. The Ethnomedicinal plants of this arid region have been studied for their medicinal uses in herbal and folk remedies by many workers [1-21].

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OBSERVATIONS AND DISCUSSION

Some important ethnomedicinal plants are described here in brief with their botanical name, family, local name and medicinal uses.

1. *Actinopteris radiata* (J.Koenig ex Swartz.) Link.

Local Name	:	Morpankhi, Sanjeevani, MayurPangio, Jahareela-podha
Family	:	Actiniopteridaceae
Ethnomedicinal aspects	:	It is generally used in acute bronchitis by the tribals. In gynecological disorders the paste of 5-6 leaves is mixed with fresh cow milk (nearly 200 ml) and taken by the tribal ladies for a week to regularize menstrual disorders and to increase fertility.



	<p>The paste of 8-10 leaves mixed with curd (nearly 250 ml) is given to develop sterility among the ladies and males in Garasia tribe.</p> <p>Decoction of leaves is also used to cure tuberculosis by the Bhils and for diarrhoea and spermatorrhoea in some region.</p> <p>Paste of stem is applied on forehead in migraine.</p> <p>The paste of crushed plant is applied on cuts, wounds, burns and scalds as an ointment by the tribals.</p> <p>One or two drops of leaves extract are poured in ear to cure earache and stop pus formation.</p> <p>One to two drops of decoction prepared from whole plant is given orally to children thrice a day for three days to stop vomiting and dysentery.</p>
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2. *Asparagus racemosus* Willd.

Local Name	:	Narkanto, Satawari, Adharvela
Family	:	Liliaceae
Ethnomedicinal aspects	:	<p>The root-powder is taken orally with milk widely by the tribal communities as an appetizer or eaten in the form of a sweet-called 'Halwa', made with wheat flour, sugar and ghee as a growth tonic, energetic and to increase sexual potentiality.</p> <p>Bhils believe that it also decreases the chances of abortion by providing strength to the weak uterus.</p> <p>Extract of tuber is mixed with honey and taken orally to cure dyspepsia.</p> <p>In winters tubers are boiled in mustard oil till they are completely charred. This oil is consumed by the patients of rheumatoid arthritis either by preparing 'Halwa' or by preparing vegetables. It is very effective in reducing the joint pain.</p> <p>Tribes take out the extract of roots, add sugar and take one tea spoonful daily as a health and nerve tonic.</p> <p>Bhils prepare a decoction from the slices of stem and take orally to cure chronic dysentery.</p> <p>It also helps in the expulsion of guinea worms.</p> <p>Roots are eaten by the tribes to use body ache, boils, cough, urinary tract inflammation, leucorrhoea etc.</p>

3. *Calotropis gigantea* (Linn.) R. Br.

Local Name	:	Moto-Aak, Safed-Akra, Shiv-oak, Akro
Family	:	Asclepiadaceae
Ethnomedicinal aspects	:	<p>Powders of white flowers is mixed with honey and given orally to patients suffering from mental disorders.</p> <p>The Bhil tribals apply the latex of plant locally to cure guinea-worms in southern parts.</p> <p>They also collect a thick root-stock, make it hollow, fill the cavity with Bajra grains (<i>Pennisetum americanum</i>) and roast the roots and leaves it overnight. Now the Bajra grains are removed, floured and made into bread which is given to the patients of asthma to eat.</p> <p>Tribes burn the mature yellowish leaves and take orally a very small amount of ash to cure cough and cold.</p> <p>Root-paste is applied against scorpion-sting.</p> <p>Tribes also put the leaves in boiling water for some time and then rub the leaves on the body to cure fever and jaundice. The bath is taken with hot water after this therapy.</p>

4. *Cassia auriculata* Linn.

Local Name	:	Anwal, Tarwan
Family	:	Caesalpiniaceae
Ethnomedicinal aspects	:	<p>The Garasia tribals wash the eyes with the decoction of seeds in ophthalmia and conjunctivitis.</p> <p>Bhils take orally the fresh flowers with sugar to cure diabetes and urinary disorders.</p>



	<p>They also give leaves as an anthelmintic to the children.</p> <p>Twigs are used as toothbrush in toothache.</p> <p>Decoction is made from mixture of bark of <i>Cassia auriculata</i>, driblets of <i>Allium sativum</i> (Garlic), powder of rhizome of <i>Curcuma longa</i>, <i>Syzygium aromaticum</i> (clove) and jiggery. Two tea spoon of this decoction is given twice a day for 6-7 days to cure asthma. Bronchitis, cold and cough.</p> <p>Decoction of leaves and roots is used as anti dysenteric.</p> <p>Root paste mixed with <i>Ricinus communis</i> oil is warmed and tied locally on affected parts of body in rheumatism.</p> <p>Root – powder with mustard-oil can be applied against skin diseases and on the abdomen against problem in urinary discharge..</p>
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5. *Cassia italica* (Mill.)Lamk. Ex Anders.

Local Name	: Goral, Gharawal
Family	: Caesalpiniaceae
Ethnomedicinal aspects	: A powder of <i>Fagonia indica</i> mixed with fruits of <i>Terminalia chebula</i> and leaves of <i>Cassia italica</i> can be taken orally to cure abdominal pain by tribals. It is also used as a tonic against weakness.

6. *Convolvulus arvensis* Linn.

Local Name	: Hiranpagi
Family	: Convolvulaceae
Ethnomedicinal aspects	: Garasia and Bhil tribals use tea made from leaves as a wash on spider bites. Leaves have laxative effects. Tribes used flower tea to reduce fever and heal wounds. Flowers are also laxative Roots of this plant have strong emetic effects.

7. *Cuscuta reflexa* Roxb.

Local Name	: Amar bel, AkashBel
Family	: Cuscutaceae
Ethnomedicinal aspects	: Extract of whole plant is taken orally by the Bhils to cure jaundice. The paste of whole plant applied on chest and also given orally to children in cholera and asthma by Bhil tribals. Poultice of warmed stem is tied for early cure of swelling or injuries. In dermatitis and other skin diseases tribes also take herbal bath of whole plant. Tribes take orally the decoction of stem to cure diarrhoea.

8. *Enicostema axillare* (Lamk.) Roynal.

Local Name	: Naame, Naama, Kadava, Nahli
Family	: Gentianaceae
Ethnomedicinal aspects	: Half tea spoon extract of leaves is taken by the Bhil and Garasia tribals twice a day for 2 days in malarial fever and insect poisoning. The paste of whole plant is applied locally on wounds, purulent wounds, tumour and boils to stop pus formation. It also acts as an antiseptic. The extract of whole plant is taken orally by the tribals in dysuria whereas decoction is taken to cure bodyache, flatulence and stomachache. One teaspoon full powder of shade dried plant with honey and milk is prescribed by local vaidas as a blood purifier and to cure dropsy, rheumatism, abdominal ulcer, hernia etc. Saharia tribals give infusion of plant to their children as a growth tonic of this region. The tribes boil the plants in the water and make a paste which is applied on the abdomen for relief in pain. They also apply leaf extract as an antidote against scorpion sting and snake-bite.



		The leaf extract is also used on teeth to cure toothache.
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9. *Martynia annua* Linn.

Local Name	:	Kagala, Bichhu-Kanto, Billi, Bichhu-butti, Bichhu-ankadi, Bagh-nakhi
Family	:	Martyniaceae
Ethnomedicinal aspects	:	<p>The Saharia tribals take orally the decoction of plant with black pepper to cure pneumonia and cold fever.</p> <p>The local vaid prescribes the seed-oil to cure scabies, eczema and against allergy.</p> <p>Bhils extract the seed-oil by heating the fruits and use as prescribed by the vaid.</p> <p>Paste of leaves is applied locally on swelling, boils and rheumatism.</p> <p>Tribes apply the paste of fruits against scorpion-sting.</p> <p>They also chew the leaves to cure ulcer of mouth and constipation.</p> <p>The fruits are eaten to purify the blood.</p> <p>Paste of whole plant is applied locally to cure various skin diseases like carbuncles, eczema, scabies and epilepsy.</p>

10. *Mitragyna parvifolia* (Roxb.) Korth.

Local Name	:	Kadamb, Kalmi, Kalam, Kambhri
Family	:	Rubiaceae
Ethnomedicinal aspects	:	<p>Twigs are used by the Bhils as a toothbrush.</p> <p>Infusion of stem bark is given orally to the diabetic patients.</p> <p>Decoction of stem bark is used to gargle as mouth freshener.</p> <p>The paste of stem and root bark is applied locally in snake bite.</p>

11. *Pedaliium murex* Linn.

Local Name	:	Gokhru Kanti, Dakhni Gokhru, Pila Gokhru, Vilayati-gokhru
Family	:	Pedaliaceae
Ethnomedicinal aspects	:	<p>Garasia tribals take about 8-10 fresh leaves are rotated in half litre water and half cup of this water is taken once a day for 7 days to cure gonorrhea.</p> <p>The tribals particularly kokna, Naikra and Bhil collect the plant early morning and boil it with the milk; the white viscous liquid so formed is taken orally with honey twice a day for about a month to cure impotency in male.</p> <p>The decoction of fruits with the roots of <i>Abrus precatorius</i> (Chirmi) is taken orally by nomadic tribes to cure syphilis.</p> <p>It is also considered very effective in checking the free discharge of semen with urine.</p> <p>Powder of whole plant of <i>Withania somnifera</i> is mixed with the powder of dry fruits of <i>Pedaliium murex</i> and taken orally by the tribals as health tonic.</p>

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CONFLICT OF INTEREST:

The authors declare that they have no conflict of interest.

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