

## Certain medicinal plants used in recovery bone fracture and dislocation of joints in Alirajpur district, Madhya Pradesh

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### Abstract

Alirajpur district is situated in the extreme western corner of Madhya Pradesh. It is known one of the tribal district of M. P. where 87% belong to tribal community. Ethnobotanical surveys were made in 20 villages during 2010 to 2016. Present 13 ethnomedicinal plants are recorded in present study which are used locally by tribals in bone injury, fracture, ligament pain etc. Mentioning few of important plants of this category are *Aloe vera*, *Acacia leucopholia*, *Butea monosperma*, *Bomboosa*, *Calotropis procera*, *Cisuss quadrangularis*, *Cordia mixa*, *Ficus glomarata*, *Ficus bengalensis*, *Madhuca indica*, *Ipomoea fistulosa*, *Sarcostemma acidum*, *Ricinus communis*.

**Keywords:** bhil, bone fracture, ligament, ethnomedicinal, tribals

### Introduction

Alirajpur is one of the tribal district of Madhya Pradesh and lies between 73°-30' to 75°-01'E, Longitude and 21°-30' to 23°-55' North latitude. It is bordered by Barwani district on the east Maharashtra on the south west and Gujrat state on the north west. Administratively the district is divided into 3 subdivision, namely Alirajpur, Jobat and Bhabhra tehsil. Forests area confined to Bhabhra and Alirajpur tehsil. Most dense forests are found in Kattiwada region. Alirajpur district has rich population of tribals accounting 87% of total population. The area is dominated by Bhils and their subtribes. Bhils are indigenous non-Aryan tribal group and origin of these people is Proto Austroid. Bhil constitutes 25 percent, Bhilala constitutes 40, Patelis 10 and Barela 12 percent respectively. They follow primitive customs, occupations and have a rich indigenous culture. Tribals donot believe in modern medicines and used to treat diseases from local medicineman called Badwa, Bupa local imedicinemen collect ethnomedicinal plants from forests. They treat their diseases from local traditional healers and rarely go outside for health care. Traders come in the local market and purchases medicinal plants and plant parts so demand of ethnomedicinal plants is increasing and some plants bcoming threatened due to trading. Tribals are totally dependent on plants. Plants have been utilized as medicines for thousands of year (samuelsson,

2004) [16]. Plants used for bone fracture are of age old practices in India. The reference to the curative or healing properties of certain herbs in Rigveda seems to be the earliest record of use of plants in medicine or surgery. Plants associated with healing of bones in ancient times is found in Sushruta Samhita and later works indian system of merdicines. S Literature review reveals that few research papers are available from in study area. (Samvatsar & Diwanji, 2000; Thakur *et al.* 2014; Wagh and Jain, 2010; Thakur and Iqwal, 2015; Ray *et al.* 2011.) [1-3, 12]

### Material and Method

Extensive ethnobotanical field surveys were made during 2010- 2016 and 20 villages were visited place by me Aamkhut, Mandar, Ratanmal, Kadwal, Kathiwada, Panahla, Sorawa, Bhabara, Sondwa, Walapur, Kanwada, Sevaria, Nehatda, Dugarimata, Kutadi, Umari, Kuwa, Chichlguda, Kachala, Dugargav. Literature were consulted to verify the plants and their ethnomedicinal importance. Tribal Badwa Bhupas and medicine men were frequently interviewed following specific questions. Ethnomedicinal plants collected were identified with the help of standerd flora (Khan, Sardesai and available literature. Herbarium specimens have been deposited in the PMB Gujarati Science College, Indore.)

Table 1

S. No	Botanical name	Family	Local name	Plants part	Use
1.	<i>Aloe vera</i> (L.) Burm. F.	Asphodelaceae	Gawar patha	Leaf extracts and leaves	Past of leaf extract turmeric and coconut oil are mixed and Fried until yellowish brown colour appered apply externally on infected part, cure ligament, cartilage pain 21 days.
2	<i>Acacia leucophloea</i> (Roxb.) Willd.	Fabceae	Reenza	Leaves and bark	Bark powder of the plant coconut oil and turmeric are mixed and made into paste. Paste applied externally during bone fracture for one month.
3	<i>Butea monosperma</i> (Lam.) Tuab.	Fabaceae	Palas	Root and bark	Paste of root bark is applied during externally is bone fracture to cure pain.

4.	Bomboosa ArundInacea	Poaceae	Vasni	Stem Strip	Stem strip and onion in past are applied eternally on bone fracture to support.
5.	<i>Calotropis procera</i> (Aiton) WT. Aiton.	Apocynaceae	Aakada	Leaves latex	Latex is rubbed and leaves are tied in fractured part of bones.
6.	<i>Cordia myxa</i> L.	Boraginaceae	Gondi	Stem bark, fruits	Bark of plant is used in bone fracture.
7.	<i>Euphorbia nerifolia</i> Juss.	Cactaceae	Thuvaria	Stem, leaves and whole plant	Stem, leaves and latex are mixed and are made into paste is applied externally. This inflammation to cure swelling ligament.
8.	<i>Ficus glomarata</i> L.	Moraceae	Gular	Stem bark, latex, leaves and fruits	Stem bark and latex are mixed with onion paste and applied externally during bone injury.
9.	<i>Ficus bengalensis</i> L.	Moraceae	Bad	Stem bark, latex, leaves	Bark are crushed and mixed with latex forming paste. This paste warmed up and applied on injury.
10.	<i>Madhuca indica</i> (J. Konig) J. F. Macbr.	Sapotaceae	Muhada	Flower part	Paste of flower is applied externally during dislocation of bone and fracture.
11	<i>Ipomoea fistulosa</i> Jace.	Convolvulaceae	Barmasia	Leaves	Leaves are warmed and tied externally on injured part of bone.
12	<i>Ricinus communis</i> L.	Euphorbiaceae	Vendi	seed oil	Onion paste is mixed with seed oil and rubbed on injured part.
13	<i>Sarcostemma acidum</i> (William Roxburgh.)	Apocynaceae	Somavalli	Stem	1. Stem juices of the plant is taken orally in joint pain. 2. Stem is applied externally on broken parts for 21 days. Sticks of stem are prepared from plant and tied on broken part.

### Discussion

Present study records. 13 medicinal used by tribals plants in bone injury which are distributed in 10 families. Root, Stem, Leaf, Bark, Gum, Latex, Fruits and Seed oil have been used in bone fracture and joint part. Khare (2014,) reported 3 plants used in bone fracture of which similar use. *Butea monosperma*, Jain and Pchaya (2015) reported 93 ethnomedicinal plants of Alirajpur district MP but no information was noted in their study regarding the use of ethnomedicinal plants in bone fracture and dislocation of joints. Study reveals that most of the plant is reported first time in bone fracture from Alirajpur district, MP.

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