

ORIGINAL ARTICLE

Plants Used for Bone Fracture by Indigenous folklore of Toranmal Plateau, Nandurbar District, Maharashtra, India

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ABSTRACT

The present communication gives information on the therapeutic properties of 17 plants used for treating bone fracture by the natives of Toranmal region. Of these, 10 species are not reported earlier for the bone fracture in major literature published so far. Information on botanical name, vernacular name, family, part used, mode of medicine preparation and administration is provided.

Key Words: Indigenous folklore, Bone fracture, Toranmal, Nandurbar, Maharashtra.

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INTRODUCTION

Toranmal, one of the higher elevation plateaus of Satpuda Mountain situated in northern part of Maharashtra State. It lies between 21°52' N latitudes and 74°31' E longitudes and cover about 41 Sq. Km. of forest area. Earlier it was in Dhule district of Maharashtra, due to recent division it has become part of Nandurbar district of the State. Forest of this plateau is of Tropical dry deciduous type dominated by *Tectona grandis* L. *Terminalia* spp. and *Acacia catechu* (L.f.) Willd. There is no major ethnobotanical work from the area as such and hence we wish to explore the area to document the rich traditional heritage. Forest Dwellers: In this area about 80% population is Tribals and the major tribes are Bhil and Naika / Naikda, other minor tribes are Dhanka, Gomit, Konkana and Pardhi. The language used by them is akin to Marathi. In addition to food they are using several plants for their basic requirements like medicine, fodder, fibre, dye, etc. They collect plant material from nearby forests and also grow some important species in their kitchen and door yard gardens.

Tribals residing in these areas have great faith in the useful and curative properties of these plants. Most of the plants are used in fresh condition for the treatment and some are dried and stored for future use. Living close to the nature they have acquired unique knowledge about the use of flora and have developed pharmacopoeia of their own. Many health hazards like gastrointestinal disorders, jaundice, fever, snake-bite, injuries, etc. are being treated by using these plant materials. Considering rich ethnic as well as plant wealth present area has been proposed for ethnobotanical investigations.

METHODS AND MATERIALS

For documentation of ethno-botanical information and collection of plant material, several tours were undertaken during the period 2012- 2014. Data presented here is based on personal observations and interviews with traditional healers (Viz. medicine men, hakims and old aged people) and methodology used is based on the methods available in literature [1, 2].

Ethnobotanical information about bone fracture gathered was documented in datasheets prepared. For collection of plant material, local informer accompanied to authors. Plant identification was done by using regional flora and flora of adjoining districts [3, 4].

Plants used in bone fracture were compared with major published literature [5-11, 1, 12, 13, 3, 14]. Uses which are not mentioned in the mentioned literature are considered as uses less known and are marked by (*) asterisk.

Enumeration: Following data includes botanical name of species, vernacular name, family, plant part used, method of preparation of medicine and mode of administration and details about its application.

RESULTS AND DISCUSSION

Total 15 plant species recorded to be used for treating bone fracture are belonging to 14 families. Among these five species viz; *Buchanania cochinchinensis*, *Dodonea viscosa*, *Grewia hirsute*, *Sarcostemma viminalis* and *Vanda tessellate* have previous reports of used against bone fractures [5-14, 1, 3, 15]. Information on the remaining 12 plants was not found in the literature.

Enumeration: Following Data Includes The Plants Used In Treating Bone Fracture Which Is Followed By Family Name And Local Name. Under Uses Mode Of Preparation Of Medicine, Method Of Application And Doses Are Given In Detail. The Uses Which Are Not Reported Earlier Have Marked By An Asterisk (*).

Aegle marmelos (L.) Corr. (Rutaceae) Bel.

Use: *Extract prepared of stem bark along with stem bark of *Syzygium cumini* taken equal proportion. 20-30 ml extract with one glass goat milk taken once a day until cure.

Buchanania lanzan (Lour.) Almeida (Anacardiaceae), 'Charoli'.

Uses: Stem bark with bark of *Pongamia pinnata*, *Ficus religiosa*, *Syzygium cumini*, *Soymida febrifuga* and *Semecarpus anacardium*, each in equal proportion, crushed and 40-50 ml decoction taken once a day for 41 days.

Cordia macleodii (Griff.) Hook. f. & Thoms. (Boraginaceae), 'Gunda'.

Use: * Stem pieces tied to join the broken bones.

Crateva magna (Lour.) DC. (Capparaceae), 'Ker'.

Use: *20 gm stem bark powder with *Zingiber officinale* rhizome, *Piper nigrum* and *Piper longum* seeds each taken in equal proportion and 5 gm mixture is taken orally once a day for three days.

Dendrocalamus strictus (Roxb.) Nees (Poaceae), 'Bamboo'.

Use: *Fractured part bandaged with wrapping of white cloth and bamboo sticks are tied from all side using coir thread. Mixture of 'Chanduram' (Lead Oxide) and 'egg' albumen is poured over it, which acts as plaster.

Dendrophthoe falcata (L.f) Etting in Denkschr. (Loranthaceae), '

Use: *One tea cup juice of handful leaves taken twice a day for three days.

Dodonea viscosa (L.) Jacq. (Sapindaceae), 'Bandada'

Use: Paste of leaves with *Curcuma longa* rhizome and oil applied externally and bandaged with bamboo strips and cotton cloth.

Grewia hirsuta A. Juss. (Tiliaceae), '

Use: One tea cup extract of stem bark with 1 gm seeds powder taken orally twice a day for 5-6 days. One tea cup diluted paste of stem bark or root with 4 *Piper nigrum* seeds powder, taken orally twice a day until cure.

Lannea coromandelica (Houtt.) Merr. (Anacardiaceae),

Use: *Bark is used as a bandage in case of bone fracture.

Madhuca longifolia (Koen.) Mac Bride var. ***latifolia*** (Roxb.) Chev. (Sapotaceae), 'Mahuwa'.

Use: *One tea cup extract of bark taken daily thrice for three days.

Phyllanthus acidus (L.) K. Skeels (Euphorbiaceae)

Use: *50-60 ml extract of stem bark with goat milk taken orally twice a day till cure.

Prosopis cineraria (L.) Druce (Mimosaceae), '

Use: *60-80 ml extraction of stem bark with goat milk taken orally once a day for 7 days.

Sarcostemma viminale (L.) R. Br. (Asclepiadaceae)

Use: 70 gm of fresh plant crushed and taken with 100 ml of goat milk for 7 days.

Sterculia urens Roxb. (Sterculiaceae), 'Karay'.

Use: One tea spoon stem bark powder with goat milk thrice a day for 41 days.

Syzygium cumini (L.) Skeels (Myrtaceae), 'Jambul'.

Use: *One table spoon powder of stem bark with 7 *Piper nigrum* seeds powder taken twice a day for 30 days.

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