



Medicinal plants useful in the treatment of piles

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Volume 6, Issue Si4, 2024

Received: 15 June 2024

Accepted: 25 July 2024

Published: 15 Aug 2024

[doi:10.48047/AFJBS.6.Si4.2024.6142-6149](https://doi.org/10.48047/AFJBS.6.Si4.2024.6142-6149)

Abstract

In recent times, a large proportion of the population suffers from piles. The term 'piles' refers to the hemorrhoidal swelling. Treatment of piles depends on the degree of their occurrence and their related symptoms. India is indicated as a storehouse of medicinal and aromatic plants from time immemorial and has a strong heritage of traditional systems of medicine, which have been providing health care to both rural and urban populations. Many indigenous drugs have been used in India for many decades in the treatment of piles. The home treatment and herbal treatment are the alternatives to the present surgical methods. An exploration work was done on the floristic diversity of the East Odisha hill range and its adjoining areas to know about the traditional knowledge about the medicinal plants used in the treatment of piles naturally. The work resulted in about 30 plant species under 21 families that have been enumerated for the treatment of piles. Their updated scientific name, local names, family, and dose regimes were also recorded.

Key words: Hemorrhoidal swelling, piles, indigenous knowledge, medicinal plants.

Introduction

Hemorrhoids are normal vascular structures in the anal canal which help with stool control (Schubert et al., 2009). They become pathological or known as 'piles' when swollen or inflamed (Lorenzo, 2009). In their physiological state they act as cushions composed of arterio-venous channels and connective tissue that aid the passage of stool. The symptoms of pathological hemorrhoids (or piles) depend on the type present (Zakir et al., 2016). Internal hemorrhoids usually present with painless rectal bleeding while external hemorrhoids present with pain in the anus (Lather et al., 2011). This is an illness that gives excruciating pain to the patients because of a swollen rectum (Singh et al., 2014). Hemorrhoids are usually occurred due to hereditary propensity, man's upright position,

occupations that require severe muscular strain, or prolonged sitting or standing in one position (Mohanta and Lenka, 2017). The aggravating causes include diarrhea (Kristyana et al., 2015), heart failure, constipation, portal hypertension, pregnancy, pelvic tumor, carcinoma of the rectum and anal infection (Rangnekar and Arora, 1974) Fig. 1. A good number of papers have been published in recent years on the ethnobotany with main emphasis on medicinal plants. However, there is practically less paper concerning the ethnomedicinal uses of plants in the treatment of piles. Thus, in this paper an attempt is made to enumerate the use of plants in the treatment of piles by a small realistic community of Odisha, India. India has a long ritual of wise conservation strategies and management that is beneficial to the people and society. The people who live in and around the forests are excluded from modern medical treatment options (Rout et al., 2009). They must rely on their natural environment to treat their various diseases, especially haemorrhoids or piles. The village elders and headmen, local people, farmers and tribals have a fantastic traditional knowledge of health reasons and the curative medicinal plants available in forest. They are also very interested in collection of medicinal and edible herbs, roots, tubers, etc. from the forests (Prakash, 2015). Therefore, it is necessary to document the perceptions of the communities as this would contribute to a better understanding of these wild plant species. Moreover, the lack of documentation of these interesting observations may lead to the extinction of this traditional knowledge (Kalita and Borthakur, 2009). The present study conducted in different districts of Odisha that highlights some such observations related to plants identified for their uses against piles. For the treatment of piles, about 24 plants species under 20 families are commonly used by them which are enumerated here in Plate 1.

Methodology

Study areas: The paper is based on the data collected on ethnomedicinal practices among the people of nearby villages of several hilly areas of Odisha include, Daringbadi (Kandhmal), Mahendragiri and Chandragiri hills (Gajapati), Taptapani (Ganjam), Kapilash (Dhenkanal), Dumuriput hills (Koraput), Olasuni (Cuttack), Deuli (Khordha), Barbil (Keonjhar), Tensa hill (Sundargarh), Niyamgiri (Kalahandi) during January to July 2023. For the present study, communities like Kandha, Sabara, Munda, Santhal, Bhuiyan, Gadaba, Soara etc. have been exhaustively investigated. Elderly persons, heads of the settlements and persons having thorough knowledge of medicinal plants and their utilization in day-to-day life were also consulted. After detailed interview data were collected, based on the nature and use of medicinal plants in controlling and curing of piles. The frequent field trips have been conducted on indigenous medicinal plants and traditional medicines used against piles.

Data collection: The detailed information about the plants, parts used, dosages, duration, method of preparation, mode of administration, precautions to be taken, etc. were recorded in a semi structured questionnaire (Kumar et al., 2021). The plant families, genera, and species of the specimens were identified by the authors.

Results and discussion

Traditional healers live in remote areas and lack of the modern scientific equipment for diagnosis and treatment; however, they treat diseases using medicinal plants. Documentation of such plants from the perspective of ethnobotanical angle is important for the understanding of indigenous knowledge systems. A total of 30 plant species belonging to 21 families were reported to be used as medicine against piles. The most cited medicinal plant families were Fabaceae, Araceae, Solanaceae, Poaceae etc. In the present enumeration each botanical name is followed by its family,

local name, and common English names if any. Part or parts used in the formulation and method of preparation and mode of use for the treatment of piles are documented. Efforts have also been made to find out the correct botanical names and the correct authors of plant names in accordance with the latest International Plant Names Index (IPNI) and Royal Botanic Garden, Kew. Color photographs were also provided for most of the species for documentation.

Family: Nymphaeaceae

Nymphaea rubra Roxb. ex Andrews

Local name: Padma

Dosage: Powder from dried root-stock is given twice a day

Family: Calophyllaceae

Mesua ferrea L.

Local name: Nageswar

Dosage: Flower paste with ghee and sugar used in bleeding piles.

Family: Malvaceae

Abutilon indicum (L.) Sweet

Local name: Pedipedika

Mode of uses: Root juice is taken along with jiggery.

Family: Oxalidaceae

Averrhoa carambola L.

Local name: Karamanga

Dosage: Ripen fruit is eaten for relieving bleeding from anus.

Family: Rutaceae

Aegle marmelos (L.) Correa

Local name: Bela

Dosage: Leaves are chewed in the morning to treat piles

Family: Celastraceae

Celastrus paniculatus Willd.

Local name: Kujuri

Dosage: Seeds are used in powder form and taken with milk to treat piles.

Family: Fabaceae

Pterocarpus santalinus L.f.

Local name: Rakta Chandan

Dosage: Decoction of stem bark is used in treating piles.

***Albizia lebbbeck* (L.) Benth.**

Local name: Sirish

Dosage: Bark or seed powder is used for relieving of painful anus.

***Bauhinia variegata* L.**

Local name: Kanchana

Dosage: The root powder with water for the treatment of piles.

***Desmodium triquetrum* (L.) DC.**

Local name: Parni

Dosage: Leaf extract is useful in the treatment of piles.

***Pongamia pinnata* L. Pierre**

Local name: Karanja

Dosage: Fresh bark juice is used internally in bleeding piles.

***Butea monosperma* (Lam.) Kuntze**

Local name: Palash

Dosage: Latex mixed with honey is used to cure piles.

***Mimosa pudica* L.**

Local name: Lajakuli

Dosage: Leaf paste is applied externally to relief pain.

Family: Combretaceae

Terminalia bellerica (Gaertn.) Roxb.

Local name: Bahada

Dosage: Fruit powder with honey or jiggery is given.

Family: Cucurbitaceae

Momordica charantia L.

Local name: Kalara

Dosage: The leaves and fruits juice are given.

Family: Plumbaginaceae

Plumbago zeylanica L.

Local name: Sweta chitrak

Dosage: Dried root powder paste is applied externally in anus on piles.

Family: Solanaceae

Solanum nigrum L.

Local name: Akaranti

Dosage: Plant juice is useful in treating piles.

Family: Lamiaceae

Vitex negundo L.

Local name: Begunia

Dosage: Leaf juice is useful in bleeding piles.

Family: Amaranthaceae

Achyranthes aspera L.

Local name: Apamarga

Dosage: Root powder with milk is given.

Family: Piperaceae

Piper nigrum L.

Local name: Pippali

Dosage: Fruit powder is regularly used externally in the infected anus.

Family: Euphorbiaceae

Ricinus communis L.

Local name: Jada

Dosage: The oil extract from seeds is used in the treatment of piles.

Family: Phyllanthaceae

Phyllanthus emblica L.

Local name: Aonla

Dosage: Fruit juice is taken for treating piles.

Family: Moraceae

Ficus racemosa L.

Local name: Dimri

Dosage: Latex with honey is eaten for treating piles

Family: Hypoxidaceae

Curculigo orchioides Gaertn.

Local name: Talamuli

Dosage: The juice from rhizome is given against piles.

Family: Dioscoreaceae

Dioscorea alata L.

Local name: Khamba alu

Dosage: Boiled tuber is useful in the treatment of piles.

Family: Colchicaceae

Gloriosa superba L.

Local name: Agnisikha

Dosage: The decoction of root is given.

Family: Araceae

Alocasia macrorrhiza (L.) G. Don

Local name: Bana saru

Dosage: Tuber powder is taken twice daily for treating piles.

Amorphophallus paeoniifolius (Dennst.) Nicolson

Local name: Olua

Dosage: Tuber is useful in treating piles.

Family: Poaceae

Cynodon dactylon (L.) Pers.

Local name: Duba ghasa

Dosage: plant juice mixed with curd is used for stopping bleeding from piles.

Saccharum spontaneum L.

Local name: Kasatandi

Dosage: tuber juice is useful in bleeding piles.

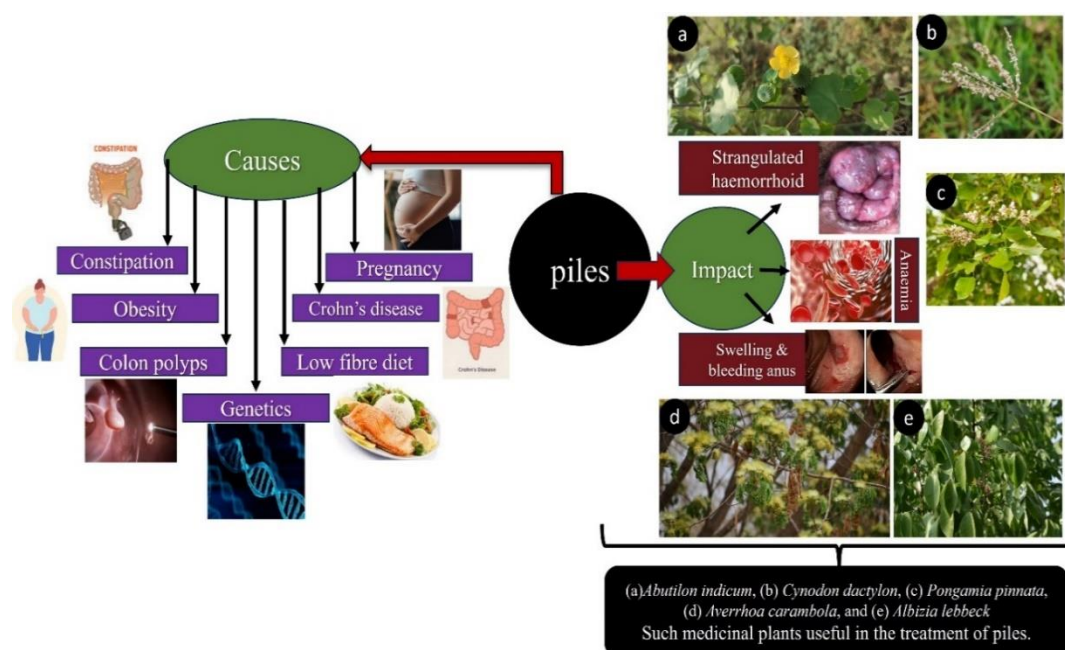


Fig. 1: Showing the causes, its harmful impacts and common plants used against piles



Plate 1: Showing effective medicinal plants useful in the treatment of piles; (a) *Albizia lebbek*, (b) *Averrhoa carambola*, (c) *Gloriosa superba*, (d) *Terminalia bellirica*, (e) *Achyranthes aspera*, and (f) *Curculigo orchoides*.

Many reports are available on the ethnomedicinal plants used by various communities of Odisha and this primitive knowledge on the plants available in wild is also highly acknowledged in global level. Panda and Padhy, (2005) documented the ethnomedicinal plants used by the tribes of Kalahandi district and mentioned *Alangium salviifolium*, *Arisaema tortuosum*, *Bauhinia purpurea*, *Celastrus paniculatus*, *Ficus benghalensis* etc used by the tribe against piles. Behera et al., (2006) reported three such plants that are used against piles by the Kandha community of Odisha like *Pterocarpus santalinus*, *Cynodon dactylon*, *Curculigo orchioides*. Mohanty et al., (2015) reported herbal folk remedies of Dhenkanal district and documented plants like *Abutilon indicum*, *Adathoda vasica*, *Butea monosperma*, *Ficus benghalensis*, *Gloriosa superba*, *Mimosa pudica* used against piles with their mode of application. Mohapatra et al., (2018) documented the ethnomedicinal plants used in Balasore district of Odisha in which they reported *Aegle marmelos*, *Withania somnifera* and *Mentha arvensis* as a curative medicinal plant against piles. Panda, (2018) documented the ethnomedicinal plants of Jajpur district of Odisha and find *Chenopodium album*, *Cuscuta reflexa*, *Diospyros melanoxylon*, *Solanum xanthocarpum*, *Vitex negundo* used traditionally against piles. Padhy et al., (2020) reported *Achyranthes aspera* and *Ocimum tenuiflorum* used by the tribals of Ganjam district of Odisha against piles. In 2021 Pradhan et al., reported common medicinal plants of Dhenkanal, Odisha, India, and documented plants like *Agretum conyzoides*, *Holarrhena antidysenterica*, *Curculigo orchioides*, *Mimosa pudica* and *Saccharum spontaneum* used to cure piles.

Conclusion

Herbal drugs have the potential to treat various types of body ailments. The demand for herbal drugs is increasing day by day because they are safer and well tolerated as compared to those of allopathic drugs. This present study could be helpful to the people as well as pharmacologists, botanists, and other relevant scientists in the preparation of herbal formulations that will be used in the treatment of piles. The plant resources have been facing severe threats for their survival due to destruction of their habitats and unplanned developmental activities. Excessive collection for medicinal purposes is another serious threat. There is an urgent need to save and regenerate such valuable resources, and awareness for conservation among the people of the survey area is also important. Also, there is an urgent need for establishing a medicinal garden for conservation of medicinal plants used by the different communities of Odisha in India.

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