

COMMON LAXATIVE PLANTS USED BY PEOPLE OF CHARKHI DADRI - AN ETHNOBOTANICAL ANALYSIS.

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ABSTRACT

Ethno botany is the study of how people of a particular culture and region make the use of indigenous plants. Ethno botany has its roots in botany, the study of plants. Botany, in turn, originated in part from an interest in finding plants to help fight illness. In fact, medicine and botany have always had close ties. Many of today's drugs have been derived from plant sources. To discover the practical potential of native plants, an ethno botanist must be knowledgeable not only in the study of plants themselves, but must understand and be sensitive to the dynamics of how cultures work. Indigenous knowledge refers to knowledge system embedded in the cultural tradition of regional, indigenous or local communities. These kinds of knowledge are crucial for survival. The indigenous knowledge is based on the accumulation of experiences and observations over the generations. Indigenous plant being evolved along with the indigenous people during generations had close relationship. They seem to be complementary to each other. Traditional knowledge is generally passed orally or through songs, stories, rituals, legends etc.

Laxatives are the substances used to soften the stools for easy passing and for the treatment of constipation. Herbal laxatives are commonly used by local people to treat constipation. People of Charkhi Dadri have traditional knowledge of some herbs most of which are locally available and are using since generations. However, the dose and duration are not standardized. In this paper various herbs commonly used to relieve constipation are discussed.

Keywords: Laxative, constipation, extract, indigenous.

INTRODUCTION

Ethno botany is the study of how people of a particular culture and region make the use of indigenous plants. Ethno botany has its roots in botany, the study of plants. Botany, in turn, originated in part from an interest in finding plants to help fight illness. In fact, medicine and botany have always had close ties. Many of today's drugs have been derived from plant sources. To discover the practical potential of native plants, an ethno botanist must be knowledgeable not only in the study of plants themselves, but must understand and be sensitive to the dynamics of how cultures work. Indigenous knowledge refers to knowledge system embedded in the cultural tradition of regional, indigenous or local communities. These kinds of knowledge are crucial for survival. The indigenous knowledge is based on the accumulation of experiences and observations over the generations. Indigenous plant being evolved along with the indigenous people during generations had close

relationship. They seem to be complementary to each other. Traditional knowledge is generally passed orally or through songs, stories, rituals, legends etc.

Laxatives are substances that help stimulate or facilitate bowel movements, commonly used to relieve constipation. They work in various ways depending on the type, and there are several types of laxatives, each with a different mechanism of action. Herbal remedies have been used for centuries across various cultures to manage constipation and promote overall digestive health.

There are different types of laxatives. These are categorized as

1. Bulk-forming Laxatives: These contain fiber that absorbs water and adds bulk to the stool, which helps stimulate the bowel to move. Example: Psyllium husk
2. Stimulant Laxatives: These stimulate the muscles in the intestines to increase bowel movement. Example: Castor oil.
3. Osmotic Laxatives: These draw water into the bowel from surrounding tissues, softening the stool and promoting movement.
4. Lubricant Laxatives: These coat the stool and intestines, making it easier for the stool to pass.
5. Saline Laxatives: These increase the amount of water in the intestines, helping to soften the stool and stimulate peristalsis (intestinal movement).
6. Stool Softeners: These help to moisten the stool, making it easier to pass.

Several herbs are known for their natural laxative effects, often used in traditional medicine system to relieve constipation. These herbs are generally taken in raw form by the local people. These herbs can stimulate bowel movements, promote digestion, or act as stool softeners. Some add bulk and mucus to the gut. Even though they are considered natural remedies for constipation it is important to use them with care and ideally under the guidance of a healthcare provider, as overuse can cause side effects such as dehydration, electrolyte imbalance, or dependence.

WHY TO USE HERBAL LAXATIVE

Herbal laxatives are used by people due to following reasons

1. Natural and Gentle: Compared to synthetic laxatives, herbal laxatives are gentle on the digestive system and less likely to cause cramping or discomfort when used correctly.
2. Improves Digestion: In addition to its laxative effects, herbs are believed to support overall digestive health and may help with bloating, indigestion, and gas.
3. Holistic Approach to Digestive Health: Herbal remedies often have multiple uses beyond just acting as a laxative. They can also promote overall digestive health by soothing inflammation, stimulating bile production, or supporting liver and kidney function, which can contribute to improved digestion and regularity.

4. No dependency: Some laxatives available in market can lead to dependency. Many herbal laxatives like psyllium husk work in a way that supports normal bowel function without causing dependency. Further, herbal remedies have gradual effects especially bulk-forming and generally take longer time to work and do not produce the immediate effect.

5. Minimum side effects: Herbal remedies, especially fiber-based ones like psyllium husk are usually much gentler and carry fewer risks when used as directed. Many herbal remedies, particularly those that are bulk-forming can be used safely over time, helping to promote consistent bowel function without disrupting the gut microflora.

6. Low Cost: Cost of herbal remedies are very less and some time free of cost. These are generally available locally.

7. Easy availability: Most of the herbal laxatives are easily available in local habitat.

DRAWBACKS OF USING HERBAL LAXATIVE

Herbal laxatives can be effective for short-term use in relieving constipation, they may exert some side effects on the body including dependency, electrolyte imbalances, gastrointestinal distress, and long-term health risks. So, these herbs should not be consumed for long time. Some of the drawbacks associated with consumption of these herbs may be:

1. Effects on vital organs of the body like liver and kidneys.
2. Electrolyte Imbalances
3. Un-prescribed and unregulated use.
4. Dehydration
5. Gastrointestinal Distress: Some herbal preparations can disturb the normal microflora of the gut. As a result many problems like bloating, abdominal cramps etc. May cause gastrointestinal distress.

COMMON PLANTS USED AS LAXATIVES

Laxatives are substances that help stimulate or facilitate bowel movements, commonly used to relieve constipation. They work in various ways depending on the type, and there are several types of laxatives, each with a different mechanism of action. Herbal remedies have been used for centuries across various cultures to manage constipation and promote overall digestive health. Respondent described some laxative plants as below.

However, herbal laxatives can be effective for short-term use in relieving constipation, they may exert some side effects on the body including dependency, electrolyte imbalances, gastrointestinal distress, and long-term health risks. So, these herbs should not be consumed for long time. Some common herbal laxatives are listed below.

Following plants are commonly used as laxatives by the local people in the study area:

Sr. No	Local Name	Botanical Name	Family	Plant Part Used	Medicinal and other Uses
1.	Gwarpatha /ghritkumari	Aloe Vera	Liliaceae	Leaves	Laxative
2.	Psyllium	Plantago ovata	Plantaginaceae	Seed Husk	Laxative
3.	Gadumba	Citrullus colocynthis	Cucurbitaceae	Fruit	Laxative, purgative, constipation,
4.	Arand	Ricinus cumminis	Euphorbiaceae	Seeds	Laxative, purgative
5.	Amaltas	Cassia fistula	Fabaceae	Pulp of fruit	Laxative
6.	Belgiri or belpatra	Aegle marmelos	Rutaceae	Fruit,	Laxative

1. Gwarpatha /ghritkumari (Aloe vera)

Aloe vera is a succulent plant species that is found only in cultivation, having no naturally occurring populations. There is, however, little scientific evidence of the effectiveness or safety of Aloe vera extracts for either cosmetic or medicinal purposes. The leaves are thick and fleshy, green to grey-green .

Aloe vera pulp is used to deal with a variety of abdominal problems. 5-10 gms. Of the pulp is eaten raw to get relief. People claim it an effective anticonstipative.

Aloe vera latex (the yellowish substance found under the skin of the leaf) has a strong laxative effect due to its anthraquinone content, which stimulates bowel movements.

Side effects: Aloe latex is potent and can cause cramping, diarrhea, and dehydration when taken for long time in higher doses

2. Isabgol Husk/ Psyllium Husk (Plantago ovata)

Psyllium seed husk is commonly used as a dietary fiber to relieve symptoms of both constipation. In constipation, it taken 2 teaspoons with warm water or milk. However, it informed by some respondents that it can be used in diarrhea with curd. Psyllium is a bulk-forming laxative, meaning it absorbs water and forms a gel-like substance that helps to move stool through the intestines.

It is considered safe even for long time consumption. It add soluble fibres to the diet.

3. Gadumba (also known as Cucumis metuliferus, or the horned melon)

Botanical Name: *Citrullus colocynthis*

The plant is very common in sandy areas of the study area like villages of tehsil Loharu and Siwani , however , the plant is also found villages of tehsil charkhi Dadri and Bhiwani of the study area. The roots are large, fleshy and perennial leading to a high survival rate in sandy desert areas.. The vine-like stems spread in all directions for a few meters looking for something to climb over. If present, shrubs and herbs are preferred and climbed by means of axillary branching tendrils.

USES

Gadumba Churan : it is a special type of mixture prepared from dried fruits of Gadumba .It is prepared by mixing of powdered fruit with ajwain , black salt and is taken with lukewarm water to treat untreatable constipation. Churan is also given to animals to treat flatulence and other abdominal discomforts.

The fruit pulp is purgative and can be given raw in just 5gm dose for easy defeceation.

4. ARAND

Botanical Name: *Ricinus communis*

The Castor Oil plant is a native of India, where it bears several ancient Sanskrit names, the most ancient and most usual being Eranda or arand, which has passed into several other Indian languages. The castor plant is commonly found in almost all the villages of district Bhiwani. The castor oil plant can vary greatly in its growth habit and appearance. It is a fast-growing, perennial shrub that can reach the size of a small tree. The glossy leaves are 15–45 centimeters long, long-stalked, alternate and palmate with 5–12 deep lobes with coarsely toothed segments. The leaves of some other varieties are green practically from the start, whereas in yet others a pigment masks the green colour of all the chlorophyll-bearing parts, leaves, stems and young fruit, so that they remain a dramatic purple-to-reddish-brown throughout the life of the plant. The fruit capsules of some varieties are more showy than the flowers. The green capsule dries and splits into three sections, forcibly ejecting seeds.

USES

Castor oil is purgative. Local vaid recommends castor oil in low doses during last trimester (fortnightly) of pregnancy and two teaspoons with the start of labour to permit easy child birth. It is derived from the seeds of the **castor bean plant**. **Castor oil in small doses** is a well-known **natural laxative** that has been used for centuries to treat constipation and promote bowel movements.

5. Amaltas (Botanical Name: *Cassia fistula*)

Cassia fistula, known as the golden shower tree and by other names, is a flowering plant in the family Fabaceae. The golden shower tree is the state flower of Kerala in India. The flowers are of ritual importance in the Vishu festival of Kerala. The golden shower tree is the national flower of Thailand; its yellow flowers symbolize Thai royalty.

The golden shower tree is a medium-sized tree, growing to 15–25 meter tall. The leaves are deciduous, 15–60 cm long, and pinnate with three to eight pairs of leaflets. The flowers are produced in pendulous racemes 20–40 cm long, each flower is with five yellow petals of equal size and shape. During flowering, the tree is almost without leaves and very beautiful. The fruit is a legume, 30–60 cm long, cylindrical and found hanging from branches in groups. The distal end of flower is pointed, green when young but turn brown on ripening.

USES

1. The fruit pulp is purgative and thus used by people of study area in treating constipation.
2. A poultice of fruit pulp is applied exogenously on belly of infants to relieve flatulence.
3. The dried pods of the Amaltas tree are sometimes boiled or soaked in water, and the resulting decoction is consumed as a mild laxative.

6. BELGIRI, BOTANICAL NAME – *Aegle marmelos*

Wood Apple (scientifically known as *Aegle marmelos*), also known as **Bael** or **Bael**. Bael tree is commonly found growing in temples, schools, gardens etc in the study area. It is a spinous, deciduous, aromatic tree,

spines, straight, strong, axillary. It grows up to 18 meters tall and bears long thorns. Leaves are trifoliolate, sometimes 5-foliolate; leaflets ovate-lanceolate, lateral sessile, terminal long-petioled. Flowers are borne in few-flowered, axillary panicles, greenish-white, sweet-scented. Fruits are large, upto 15 cm diameter, globose, ovoid or pyriform, 8-15 celled, rind grey or greyish-yellow, woody, pulp orange, sweet. Seeds are numerous in aromatic pulp, oblong, compressed, testa woolly and mucilaginous. The tree is considered to be sacred by Hindus.

Fruit has a hard, woody outer shell and a pungent, aromatic, and sweet-tart pulp inside. This fruit has a long history of use in traditional medicine systems like Ayurveda and Unani, where it is valued for its digestive and health-promoting properties.

Wood apple is **known to have mild laxative effects** and is often used in herbal medicine to help treat constipation. Its laxative action is mainly attributed to its **fiber content, antioxidants, and bioactive compounds** that promote digestion and bowel movement.

Belgiri preserve (Murabba) is prepared from ripened fruits. This preserve is easily available in the market and is very commonly recommended by herbal practitioners. 20-50 gms of the preserve is taken to cure dysentery and other abdominal problems.

Its pulp has soothing effect on stomach. The pulp has a natural laxative effect and can help relieve constipation by stimulating the digestive process.

Dried fruit powder can be mixed with water or other herbal powders to help relieve constipation.

Powder of dried fruits is mixed with dried ginger powder. 2-5 gms of this powder is recommended as stomachic and appetizer.

CONCLUSION

Plants have been used by tribals and local people for cure of various diseases. As most of the diseases of modern society are life style disease and the use of herbal medicines can overcome such problems (Kumar 2000). More over several difficult diseases have problem related with vitality, diabetes, memory loss, could be cured effectively by use of herbal medicine, which is generally not possible by the Allopathic medicines. Modern ethnobotanists have also confirmed the health benefits associated with herbs used by people of this area. When multinational companies are selling multigrain atta, multigrain biscuits, multigrain dalia etc. and earning huge benefits. But the people of this area are doing same practice since generations in a cost effective manner. People of the study area mainly use the herbs in their crude form or simple preparations like powder of dried plant parts, decoction of leaves, stem, roots etc to deal with various disorders. They do not know about the scientific methods or extracting the active principles from the plant part. It is found that people of the study area depends on locally available laxatives and are found effective. Further confirmation and experimentation are required regarding dose specification and duration of consumption.

REFERENCES:

- Agarwal, M., Srinivasan, R., & Mishra, A. (2002). Synthesis of Plantago psyllium mucilage grafted polyacrylamide and its flocculation efficiency in tannery and domestic wastewater. *Journal of Polymer Research*, 69–73.
- S. H. S. Markowitz, P. R. L. E. N. M. MacDonald(2002).Senna use and its effect on the colon: A review.*Journal of Clinical Gastroenterology* (2002).
- Bhardwaj S and Gakhar SK,(2003) Ethnomedicinal plants used by the tribes of Mizoram to cure dysentery, *Ethnobotany*, 15 (2003) 51.
- Makharia GK, Verma AK, Amarchand R, Goswami A, Singh P, Agnihotri A, Suhail F, et al. Prevalence of irritable bowel syndrome: A community based study from northern India. *J. Neurogastroenterol Motil.* 2011;17(1):82-87.
- Manjeshwar Shrinath Baliga,Harishit P. Bhat, Nandhini Joseph and Farhan Fazal(2011). Phytochemistry and medicinal uses of the bael fruit (*Aegle marmelos* Correa): A concise review. *Food Research International* , Volume 44, Issue 7, 1768-1775.
- Patkar Atul N, Desai Nilesh V, Ranage Akkatai A, Kalekar Kamlakar S(2012). A REVIEW ON AEGLE MARMELOS: A POTENTIAL MEDICINAL TREE.*INTERNATIONAL RESEARCH JOURNAL OF PHARMACY*.3(8):86-91.
- Bharti V et al., Ethno botanical Survey of Medicinal plants having food value in District Hisar . *American Journal of PharmTech Research* 2013.3(1)
- Meena MC, Meena RK, Patni V. Ethnobotanical studies of *Citrullus colocynthis* (Linn.) Schrad-An important threatened medicinal herb. *Journal of MedicinalPlants*. 2014;2(2):15-22.
- Madgulkar, A. R., Rao, M. R. P., & Warriar, D. (2015). Characterization of psyllium (*Plantago ovata*) polysaccharide and its uses. In G. R. Kishan & M. Jean-Michel (Eds.), *Polysaccharides* (pp. 871–890).