

Synergistic Laxative Potential of Poly-Herbal Formulations

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ABSTRACT

One of the most prevalent digestive issues is constipation. This problem can be brought on by low fiber consumption, dehydration, inactivity, stress, and occasionally adverse drug reactions. It causes discomfort in our lives. Constipation that is persistent requires medical intervention right away. Treatment entails improving a healthy lifestyle and consuming more fiber and drinks. Many polyherbal natural medicines have been produced for human consumption in addition to allopathic and single-ingredient medications. These medicines have been shown to be safe and effective due to their synergistic impact. The authors made an effort to describe the many natural purgatives and laxatives that are accessible. The added benefit of a synergistic impact is explained by the use of conventional medicinal substances in two different formulations: tablets and powders. By focusing on the mechanism of each ingredient and its corresponding impact, the significance of both formulations in relieving constipation and bloating is highlighted. In the end, this determines the overall impact of the corresponding formulation. Tablets are easier to administer than powder, even though powder is more quickly effective.

Key Words: Constipation, Laxatives, Synergistic impact, Polyherbal formulations,

INTRODUCTION

Constipation is a fairly common and uncomfortable complaint in today's competitive world where everyone is expected to fight fiercely and continuously for survival due to changes in lifestyle, often related to the hectic pace of life, our eating habits, overexertion, insufficient rest, and intake of an unhealthy diet, especially one without enough fiber. The Latin constipatus, which means "to crowd together," is where the word "constipation" originates. In the past, term has been used to describe the physical state or feeling of packed, hardened feces in the digestive tract.

Hard stools, considerable straining, infrequent bowel motions, bloating, and stomach pain are just a few of the symptoms that are referred to as constipation. It can be either acute (usually lasting less than a week) or chronic (usually lasting more than four weeks or, according to consensus definition, more than three months).[1] Intestinal closure brought on by acute constipation may potentially necessitate surgery.[2] No further testing is advised if a constipated patient's condition improves after taking over-the-counter laxatives or fiber supplements. If not, a colonoscopy is advised for people who are either alarmed or of a suitable age for colon cancer screening.[3]

Management of chronic constipation is proposed by Jakub et al [4]

The primary difference between laxatives and purgatives is their potency, even though

they both promote intestinal evacuation. Laxatives are mild drugs that facilitate the removal of soft-formed feces. Stronger, faster-acting purgatives, including cathartics, sometimes result in increased peristalsis and cramping in the intestines and generate watery or liquid feces. At higher quantities, many drugs can act as purgatives; at lesser dosages, they can act as laxatives.

In their narrative review, Saroj K. Sahu et al. [5] provided an excellent explanation of first-line pharmacologic therapy, emphasizing bulk-forming laxatives (fiber supplements), osmotic laxatives, and stimulant laxatives. The safest osmotic laxative for those with irritable bowel syndrome with Constipation (IBS-C) and Chronic Idiopathic Constipation (CIC) is polyethylene glycol (PEG). Less effective than PEG, lactulose is frequently associated with cramps, gas, and bloating.

In his editorial contribution, Dr. Narendra Bhatt [6] talked on the reductionist approach to the drug discovery model. Antibiotics, chemically or biologically active compounds for a variety of organ functions, and symptom-specific remedial or supportive medications have all been made possible by medical research. However, a scenario requiring a new strategy has arisen after more than a century of using the reductionist approach to generate synthetic compounds as medications. A different group of illnesses has taken its place. Iatrogenicity and drug resistance are major problems. Due to sedentary lifestyles and excessive use of technology and communication tools, the globe is starting to experience the effects of these changes. The prevalence of metabolic illnesses has significantly increased.

The use of medicinal plants for illness treatment and health promotion has increased during the last several decades.

Rtibi et al [7] investigated a number of naturally occurring bioactive substances

with therapeutic properties that enable the treatment or prevention of gastrointestinal conditions like diarrhea and constipation. Constipation has been reported to be effectively relieved by consuming polysaccharides and soluble fibers including pectin, gum, and mucilage. One of the main active ingredients in medicinal plants, tannins, have strong antidiarrheal properties because they can denature proteins to create protein-tannate complexes, which strengthen the intestinal mucosa and prevent secretion, so reducing diarrhea. According to a recent study, sulphated polysaccharide extracted from the seaweed *Gracilaria caudata* was found to be more effective than other natural products at reducing diarrhea. The habit-forming properties of a number of laxatives were well explained by Avinash Balekuduru and Manoj Kumar Sahu [8]. They found that patients with constipation exhibited habit-forming traits when using stimulant laxatives, but not when using lubricant laxatives like liquid paraffin or osmotic laxatives like milk of magnesia. Patients who are constipated may benefit from a combination of liquid paraffin and milk of magnesia due to its rapid and long-lasting effects.

Combination therapy is now the preferred method for treating metabolic and degenerative diseases, as drug discovery focused on a single target approach has experienced a significant shift. Utilizing the fundamental concepts of synergy, such as in a plant or a collection of plants, is gaining popularity again. As biology improves, there is also a desire to investigate hypotheses that explain the use of these plants or their formulations, which are common in conventional medical systems.

There are many different kinds of natural laxatives. We ought to choose them based on their qualities and suitability:

Commonly used natural laxatives are briefed below in Table 1

Table 1: Comparison of commonly used Natural Ingredients used for Constipation

	Senna	Isabgol	Triphala	Chicory
TYPE	Stimulant Laxative	Bulk Forming Laxative	Mixture of Amla, Behda, Harada	Prebiotic Fiber
MECHANISM	Irritates the lining of bowel, forcing the Intestines to contract and move stool quickly	Absorbs water in the gut, swell and soften Stool, adds bulk, make It easier to pass	Mild Laxative, Cleanser Detoxifier, tones the colon and acts as an astringent to improve digestion	Prebiotic, feeding good gut bacteria to improve digestion over time
BEST FOR	Severe, acute constipation	Acute Constipation and Irritable Bowel Syndrome (IBS)	Long term digestive balance, Chronic constipation, and overall gut detoxification	Regularity, prebiotic nutrition balance (Gut Health)
PROS	Fast-acting	Natural Non-Habit forming safe for long term use	Mild, Non-Habit forming nutrient rich, improves long term gut health	Improves overall gut flora
CONS	Habit Forming if used for long term	Must be taken with plenty of water	Slower acting than Senna and Isabgol	Less effective for direct Constipation relief
SPEED	Very fast (6-12h)	Fast(12-24h)	Moderate / Slow	Slow (Cumulative)
Isabgol is the best first choice for fast relief from hard stool				
Triphala is better than Senna - For Chronic, long term issues				
Chicory is an excellent addition - for digestive health improvement				
Drinking Plenty of water is recommended				

Fructose contained in chicory was determined to be mainly engaged in prebiotic activity by Celein et al. [9]

Saeed et al.'s [10] study of chicory's beneficial effects, explained particularly with regard to its function as a hepatoprotective agent, and also validated its use as a prebiotic against certain bacterial species both in vitro and in vivo.

Natural laxatives have a synergistic effect that is more potent, balanced, and safer than taking a single ingredient when various plants or chemicals are combined. These compounds function through multiple processes, including as increasing bulk, lubricating the intestines, and accelerating motility.

Even though every natural ingredient has a variety of active ingredients and functional groups that work in concert; to increase the formulation's potency, authors have experimented with polyherbal formulations. To talk about the potency of different compounds, two formulations—Qabzofast

Tablets and Pet-Anand Powder—marketed by M/s Makers Laboratories Ltd. were chosen.

FORMULATIONS

a) Qabzofast - Ayurvedic Laxative Tablets

An Ayurvedic Proprietary Medicine Mfd by Makin Laboratories Pvt Ltd.

Marketed by Makers Laboratories Ltd.

Composition:

Each film coated tablet contains

Extracts of:

Sanaya (Cassia angustifolia) Lf	300mg
Haritaki (Terminalia chebula) Fr.P.	150mg
Ajwain (Trachyspermum ammi) Fr	60mg
Mulethi (Glycyrrhiza glabra) Rt	60mg
Sonth (Zingiber officinale) Rz	60mg
Nishoth (Operculina turpethum) Rt	25mg

Powders of:

Saunf (Foeniculum vulgare) Fr	110mg
Triphala (Amla, Baheda, Harad)	60mg

Hing (Ferula foetida) Oleo-Gum-Resin
25mg

Oil of:

Eranda (Ricinus communis) Sd 5mg

Raw Used:

Sajjikhar 10mg

Excipients q.s.

Preservatives: Sodium Methyl Paraben IP
Sodium Propyl Paraben IP

b) Pet-Anand Natural Laxative Powder

An Ayurvedic Proprietary Medicine Mfd by
Italia Pharmaceuticals Pvt Ltd.

Marketed by Makers Laboratories Ltd.

Composition:

Each 5g contains

Powder of:

Sanay (Cassia angustifolia) Lf 1.168g

Kalanamak (Black Salt) 0.643g

Harad (Terminalia chebula) Fr.P. 0.584g

Saunf (Foeniculum vulgare) Fr 0.398g

Isabgol (Plantago ovata) Sd husk 0.375g

Nishoth (Operculina turpethum) Rt 0.186g

Mulethi (Glycyrrhiza glabra) Rt 0.186g

Powder base q.s.

Preservatives: Sodium Benzoate IP

Every ingredient used in the individual
formulation has got its own significance.

1. Sanaya (Senna): (*Cassia angustifolia*)



Fig. 1: Senna Leaves and Pods

The FDA has approved this over-the-counter (OTC) laxative movement. Sanay has long been used in traditional medicine, primarily as a potent natural laxative. One of the most often used botanical laxatives is

senna leaf [11], which is classified as a laxative with hydragogue and anti-absorptive properties.

Active ingredients are extracted from senna leaves and pods. It includes anthraquinone derivatives called Sennosides A and B. By encouraging bowel motions and cleaning the digestive tract, it helps alleviate constipation. However, it lowers the body's potassium levels.

After an abdominal procedure, cassia angustifolia extract can be administered as an enema. It controls abnormal gastrointestinal tract function.[12]

Tugba et al. [13] investigated the therapeutic efficacy of senna alone in elderly patients with chronic constipation. Results indicated that senna is more effective than senna with bisacodyl for the short-term treatment of constipation in the senior population in terms of increasing constipation severity and enhancing quality of life.

2. Haritaki (Harda): (*Terminalia chebula*)



Fig. 2: Harda Fruits

This is one of Triphala's three compounds. Amino acids, palmitic acid, beta-sitosterol, anthraquinones (Emodin), tannins (Cheulagic acid, Chebulinic acid, Gallic acid), flavonoids, and vitamin C are all present. When combined, these elements increase hunger and strengthen the digestive system. may interfere with blood pressure and diabetic medications, perhaps causing blood sugar levels to drop too low.

3. Ajwain (Carom seeds): *Trachyspermum ammi*



Fig.3: Ajwain (Carom seeds)

Rich in vital fatty acids, fibre, and minerals like calcium, iron, and phosphorus. Ajwain has therapeutic value since it contains essential oils with 35%–60% thymol: the main ingredient, which has antibacterial, antifungal, and anaesthetic qualities in addition to a potent scent. One substance that has antibacterial qualities is carvacrol. Terpenes: These aid in digestion and include -terpinene, -cymene, and -pinene. It has antibacterial, anti-inflammatory, antioxidant, carminative, and digestive stimulating properties. Thus, it has long been utilised as a home cure for stomach problems. For those who are allergic, ajwain sensitivity may result in rashes or skin irritation. Limiting consumption is recommended for people with liver illness.

4. Mulethi (licorice / Jethimadh): *Glycyrrhiza glabra*



Fig. 4: Mulethi (Jethimadh)

Mulethi has anti-inflammatory, antibacterial, expectorant, adaptogenic, and cooling properties. Its component carbenoxolone aids in the healing of ulcers. Glycyrrhizin, Glabridin, flavonoids, and phytoestrogens are other ingredients that have therapeutic effects. It treats acidity and ulcers. Constipation, gastritis, and heartburn all shield the stomach lining. Hypokalaemia, or low potassium levels that cause heart

problems and muscle weakness, can result from prolonged or excessive consumption.

5. Sonth (Ginger): *Zingiber officinale*



Fig.5: Sonth (Sunth, Ginger)

Sonth is more effective than fresh ginger because the drying process concentrates the medicinal ingredients. It contains volatile oils such as β -bisabolene and zingiberene. and gingerols, which are antioxidants and painkillers, and shaogaols, which are anti-inflammatory compounds. Paradols and zingerone contribute to its therapeutic qualities. It can be regarded as one of the greatest substances for constipation because it promotes digestive fire (Agni), boosts metabolism, lowers Ama (toxins), and soothes bloating, gas, and indigestion. It is distinct from other herbs since it is a mild laxative and an adsorbent (Grahi), which makes it helpful for irritable bowel syndrome (IBS). Compared to raw ginger, it acts at a deeper tissue level. It works by alleviating *Vata dosha* and breaking down toxins (*Ama*) that cause hard stools.

Dr. Rajpal [14] describes the pharmacological and biological activities of ginger extract as well as its therapeutic functions, dosage, toxicity, and safety.

6. Nishoth (*Trivrit*): *Operculina turpethum*



Fig.6: Nishoth

Strong purgative, detoxifying, and digestive qualities make nishoth a powerful therapeutic herb. Virechana (therapeutic purgation) is regarded as one of the greatest herbs for digestive tract cleansing.

The main therapeutic component is the root bark, which is high in resinous glycosides. Important bioactive compounds consist of:

The resin, that has a laxative effect is called turpethin. The purgative characteristics are caused by the turpethinic acids A, B, C, D, and E. Beta-sitosterol has anti-inflammatory properties. Beta-sitosterol has medicinal and antibacterial properties. As a result, it serves as a potent laxative for chronic constipation and is an excellent detoxifier for eliminating accumulated toxins from the liver and intestines. It can also be used to treat hemorrhoids and piles.

7.Saunf (fennel seeds): *Foeniculum vulgare*



Fig.7: Saunf (fennel seeds)

Saunf is a common post-meal digestive aid that is renowned for its cooling qualities and unique sweet, liquorice-like flavor. Fiber, calcium, iron, magnesium, and vitamin C are all abundant in it.

Anethole, Fenchone, Estragole, and Phytoestrogen are the main volatile oils that give saunf its aromatic and medicinal qualities. Chewing seeds after a meal can help with indigestion, gas, and bloating. lessens stomach discomfort and aids in the relaxation of digestive muscles.

8.Triphala ((Mix of Amla, Baheda, Harda)



Fig.8: Amla, Baheda, Harda, Trifala

Amalaki (Amla-*Emblica officinalis*), Bibhitaki (Baheda-*Terminalia bellirica*), and Haritaki (Harad-*Terminalia chebula*) are the three dried fruits that make up Triphala, a fundamental Ayurvedic polyherbal preparation. It is well regarded for its revitalizing, cleansing, and digestive qualities. Triphala powder is usually a fine, light-to-dark brown powder that tastes bitter, astringent, and somewhat sour. The three fruits work together to produce a high concentration of bioactive substances, including tannins, anthraquinones, flavonoids, gallic acid, ellagic acid, and chebulagic acid.

These contents alleviate flatulence, bloating, and constipation; improve digestion; and gently cleanse the liver, colon, and blood to detoxify the body.

Broad spectrum antibacterial action against a variety of Gram-positive and Gram-negative bacteria is demonstrated by [15] *Terminalia chebula* (CF) dried fruits. It possesses antiprotozoal effect against some parasitic protozoa; in particular, an acetone extract from CF seeds has shown anti-plasmodium action and includes substances that can prevent the malaria parasite from growing or surviving.

The synergistic interaction of *Embolia officianalis*, *Terminalia bellerica*, and *Terminalia chebula*, increases its effectiveness in treating problems associated to oxidative stress, gastrointestinal disorders, and metabolic disorders.[16] gallic acid and chebulagic acid are present. Its pharmacological value is supported by ellagic acid, flavonoids, and tannins, which makes it a viable option for natural remedies.

9. Hing (Asafoetida) : *Ferula asafoetida*



Fig.9: Hing – Powder and Raw Hing

It is a dried sap, sometimes known as gum resin, that is extracted from the taproots of many species of *Ferula*. It has a hot (Ushna) potency, a strong flavor (Rasa), and a post-digestive impact (Vipaka). acts as a laxative, carminative (which lessens gas), expectorant, stimulant, antispasmodic, and sedative. Components such as resin (40–64%) that contains ferulic acid, coumarins, and sesquiterpene coumarins—all of which are strong antioxidants—impart medicinal properties. 10–17% volatile oil: Rich in sulfur compounds, such as 2-butyl 1-propenyl disulfide, which has anti-inflammatory and strong scent qualities. Gum (25%): Made up of several sugars and polysaccharides. has significant levels of calcium, phosphorus, and iron. Applying hing paste externally around the navel can help babies with colic. Hing is classified as *Deepaneeeya* (appetiser) in Ayurveda.

10. Eranda (Castor oil): (*Ricinus communis*) Sd



Fig.10: Eranda (Castor oil)

It is widely used both internally and externally in Ayurveda and is highly valued for its purgative, deep cleaning, and Vata-pacifying qualities. Its laxative and anti-inflammatory qualities come from the presence of ricinoleic acid. additional ingredients: stearic acid, linoleic acid, oleic acid, and vitamin Because it softens faeces and stimulates the intestines, it is said to be the finest oil for easing chronic constipation. Excessive use may result in severe gastrointestinal problems, such as nausea, cramping in the abdomen, and diarrhoea. Electrolyte imbalance and dehydration might result from excessive purgative effects. Therapeutic aspects of Eranda Tail is very well explained by Ramraj et al [17]

11. Sajjikhhar (Sajji Kshar): Papadkhar – Raw Soda Ash



Fig.11: Sajjikhhar

The ashes of particular plants are used to make this traditional Ayurvedic remedy. It is a highly alkaline impure form of sodium carbonate (and occasionally potassium carbonate). The main ingredients of Sajjikhhar (Swarjika Kshar), an alkali-based Ayurvedic composition, are sodium

carbonate and sodium bicarbonate. It mainly works as an antibacterial agent, breaks down tissue, and neutralizes acids due to its alkaline (caustic) characteristics. It is frequently used to treat digestive issues, especially acid reflux and hyperacidity.

12. Kala Namak:



Fig.12: Kala Namak (Black Salt)

Numerous nutrients and minerals included in Kala Namak act as detoxifying agents. This special salt's antibacterial ingredients aid in eliminating impurities and purifying the body from the inside out. You will gradually reduce weight by eliminating pollutants.

Black salt, often known as kala namak, is a commercially produced food ingredient derived from Himalayan salt. To offer it medicinal qualities, salt crystals from the Himalayan region's halite mines are burned at high temperatures and then combined with a few Indian herbs. Kala namak is a fantastic laxative that helps with a number of stomach problems. Black salt used in a heated massage relieves tense muscles and lessens inflammation in the bones. Because of its distinct flavor and taste, it is widely used in Indian chat products. However, consuming too much of this salt might result in high blood pressure and other heart problems.

Black salt is good for constipation due to its Rechana (laxative) nature. It softens hard stool and helps in easy excretion.

13. Isabgol (Psyllium Husk): (*Plantago ovata*) Sd husk



Fig.13: Isabgol

The seeds of the *Plantago ovata* plant, which is mostly grown in India, are the source of isabgol, also referred to as Psyllium Husk, a naturally occurring, soluble dietary fiber. It is usually powder or pale-colored flakes formed from the seed's outer layer. Its high mucilage content, which functions as a mild bulk-forming laxative, is well known. 75–80% of the fiber in food is made up of both soluble and insoluble fibers. When combined with water, the husk turns into a gel that may stretch up to 40 times its weight. It increases the moisture content of stool by absorbing and holding onto water. It aids in the reduction of digestive tract edema. It has a high carbohydrate content, some protein, and very little fat. If the main problem of an individual is bloating sensitivity and fibre anxiety, PHGG-Partially Hydrolyzed Guar Gum is often the gentler first lane, but if the main goal is stool support and bowel regularity, psyllium can be considered the direct fit.

The pharmacological and pharmacodynamic characteristics of isabgol husk were described by Vipin Sharma and A Bhattachaya,^[18] with an emphasis on adverse effects and interactions with other pharmaceutical items. When used with isabgol husk, few medications exhibit reduced absorption. To reduce potential interactions, it is therefore recommended that medications be taken at different times than Isabgol husk, such as an hour before or a few hours after taking Isabgol husk. Patients with insulin-dependent diabetes must lower their insulin dosage if it is taken with meals.

Chavhan et al. ^[19] provide a clear explanation of Isabgol's potential to provide a complete treatment.

PRESEVATIVES: In acidic (pH < 4.5) products, sodium benzoate IP, a common water-soluble antimicrobial preservative (E210/E211), stops the growth of mould, yeast, and bacteria. At quantities usually less than 0.1%, it successfully prolongs the shelf life of beverages, cosmetics, and pharmaceutical syrups by converting into benzoic acid.

When ingested, sodium benzoate is conjugated with glycine in the liver to produce hippuric acid, which is eliminated in the urine. Sodium benzoate is a good antibacterial preservative in powder form.[20]

Water-soluble, broad-spectrum antimicrobial preservatives that are very effective at inhibiting the growth of bacteria and fungi are sodium methyl and sodium propyl parabens.

DISCUSSION with LITERATURE REVIEW

Rogaye et al. [21] investigated laxative food ingredients like fruits like plum, fig, kiwifruit, and seeds like flax seed, as well as laxative foods like wheat bran, prune, rye, inulin, kiwifruit, and pre/probiotic. Based on these findings, they advised using laxative foods first to prevent potential side effects.

Functional constipation in children, adolescents and adults is persistent, difficult and, infrequent hard stooling with incomplete rectal emptying that does not have an identifiable cause, such as underlying illness, anatomical abnormality, or medication. Multiple complex pathophysiological mechanisms have been

linked to childhood constipation, in which stool-holding behaviour is the most common factor Toilet training along with osmotic laxative use is currently the common therapy for childhood constipation. Additionally, Samina and Muhammad C. [22] recommended using innovative treatments to manage pediatric functional constipation.

Constipation may benefit from polyherbal formulations because of their multi-targeted strategy and synergistic effects.

1. Multi-mechanism action: Herbs with several mechanisms, such as laxatives (like Senna), stool softeners (like Isabgol), and gut stimulants (like Triphala), are frequently combined in polyherbal compositions.
2. Enhanced efficacy: Using a combination of herbs can help relieve constipation symptoms more quickly and effectively.
3. Decreased adverse effects: The adverse effects of high doses of a single ingredient can be minimized by using several plants at lower concentrations.
4. Holistic approach: To promote general digestive well-being, polyherbal formulations frequently target underlying imbalances, such as gut health and bowel habits.
5. Traditional evidence: Constipation has long been treated with a variety of polyherbal remedies, such as Ayurvedic or Unani blends.

Key factors influencing the choice between powder and tablet poly herbal formulations are tabulated as below:

Table 2: Powder and Tablet forms of formulation

Sr. No.		Powder	Tablets
1	Patient preference	Some prefer the traditional approach of powders	other prefer the convenience of tablets.
2	Dosing Flexibility	This form allows for easier dose adjustments	Tablets offer fixed doses
3	Bioavailability	Might have better bioavailability, due to less processing	Can be formulated for controlled release
4	Stability and Shelf life	Less stable, susceptible to aerobic microbial contamination	Generally, have better stability and longer shelf life
5	Additives and Excipients	Can be formulated with minimum excipients	May contain additives
6	Therapeutic goals	Gives rapid action	Suit chronic management

Hence though polyherbal formulations come in both powder and tablet forms, the choice often depends on the manufacturer's formulation expertise and the target patient population.

Analytical testing of formulation assures the quality of the product considering efficacy and safety throughout the shelf life.

Sonavaria et al. [23] determined the sennoside A, B, ROI, and calcium content and established the extract specifications to ensure uniformity in each batch of pertinent formulation.

Sennoside-containing tablets were assessed by Rane et al. [24] who used the disintegration and dissolution parameters to explain the laxative effects. Also, Rane et al. [25] estimated the amount of inulin in Naturox-A powder using the spectrophotometric method.

Titration or spectrophotometric methods [26] can be used to quantitatively assess the tannins in triphala and each of its constituent ingredients, namely Amla, Behda, and Harda

IP, BP Herbal Pharmacopoeia mentions the valid method for swelling Index which can be applied to evaluate the quality of Isabgol. Sarmad Abbas et al [27] They found that the *Plantago ovata* husk had a high swelling index (380%) which decreased by pulverization (310%). Also proved that *Plantago ovata* husk can be used as a disintegrant in the formulation of Oro Dispersible Tablets (ODTs).

According to Dr. Adarsh Kumar and Priyanka Barange, [28] laxatives may cause intestinal dysfunction, dependency, electrolyte imbalance, dehydration, rectal prolapse, and melanosis coli. Overuse of laxatives can lead to the loss of water, electrolytes, and vitamin K. Therefore, it is advised to prevent constipation by increasing activity and improving diet.

Fedele et al. [29] have provided dosages for various oral medications based on age groups.

Kajal Shilpi, Amit Jain, and Dixit Patel [30] conducted the study to ascertain the demographics of individuals with Chronic

Constipation (CC) in India and the laxative therapy prescription patterns among them. Patients' levels of distress are raised by CC. The most often given medication for constipation management is lactulose solution.

More research is needed to determine in commonly used Ingredients imparting laxative effects are:

Triphala (*Terminalia chebula*, *T. bellerica*, *Emblica officinalis*): More research is needed to determine the precise mechanism of these herbs' synergy.

Senna Extracts: Studies to reduce the risk of bloating and cramps in formulations.

Isabgol Husk: Assessing the best combinations to enhance patient adherence.

According to current research, in order to bring traditional medicines into mainstream therapeutic use, more study on laxative polyherbal formulations is needed. These studies should focus on strong clinical validation, standardization, and long-term safety.

CONCLUSION

Globally, the consequences of sedentary lives and excessive use of technology and communication tools are beginning to become apparent. Metabolic illnesses are become far more common. It's frequently uncertain what aspect of a complex medical condition a drug will address, how the patient will respond to it, or even how the drug would behave in the same patient with a slight modification.

Many polyherbal treatments are believed to work in concert. These promote synergy and increase therapy efficacy and safety.

Ultimately, the choice depends on individual preferences, needs, and the specific product quality

Therefore, a formulation with multiple constituents is recommended over a medication with a single ingredient. The overall efficacy of the polyherbal formulation for constipation maintenance can be demonstrated by comprehending the content, mode of action, and relevance of each individual constituent. As a result,

Qabzofast Tablets and Pet-Anand powder are both offered over-the-counter. Both of these products work well and are safe for ingestion.

Declaration by Authors

Ethical Approval: Not applicable

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