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AN AYURVEDIC INSIGHT IN MANAGEMENT OF LAXATIVE ABUSE IN GERIATRIC PATIENT: CASE REPORT

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Abstract: Laxative misuse, particularly prevalent among the geriatric population, presents substantial clinical challenges, including disturbances in electrolyte balance, dehydration, and progressive gastrointestinal dysfunction.[1-2] This case study details the therapeutic management of a 79-year-old female patient with a history of chronic laxative dependency, approached through an integrative framework. The intervention combined traditional herbal modalities, notably *Cassia fistula* (Indian laburnum) and *Triphala Kwath (Triphala kwath*, an Ayurvedic decoction composed of three fruits: *Emblica officinalis, Terminalia chebula*, and *Terminalia bellirica*), aimed at restoring bowel regularity and supporting colonic function.[3-4] The report examines these botanical agents' therapeutic potential and pharmacodynamic properties, highlighting their role in promoting gastrointestinal resilience and mitigating reliance on stimulant laxatives.[5] The findings underscore the relevance of evidence-informed, traditional plant-based interventions in addressing complex, age-associated digestive health concerns.

IndexTerms - Cassia fistula, Laxative Abuse, Geriatric Patient, Chronic Constipation, Anthraquinones.

INTRODUCTION

Chronic constipation represents a prevalent and often distressing condition among the elderly, frequently culminating in the habitual use and subsequent misuse of over-the-counter laxatives. Although these agents offer temporary relief, their prolonged or excessive use can precipitate a spectrum of adverse outcomes, including pharmacological dependency, disturbances in electrolyte homeostasis, dehydration, and the development of *cathartic colon*—a condition characterised by diminished colonic motility in the absence of exogenous stimulation.[1] In older adults, such complications not only compromise gastrointestinal function but also exert a broader impact on physical health and overall quality of life.[6]

Amid growing concerns surrounding the limitations of conventional therapies, attention has increasingly turned towards traditional herbal formulations as adjunctive or alternative strategies. *Cassia fistula* (Indian laburnum), a plant esteemed in Ayurvedic medicine for its mild laxative and antioxidant properties, has emerged as a potentially safer and more sustainable approach to managing constipation, particularly in individuals with a history of laxative overuse.[3-7]

This case report presents the clinical management of an elderly female patient with chronic laxative dependence, in whom *Cassia fistula* was employed to alleviate constipation and support the restoration of gastrointestinal function. The case underscores the therapeutic promise of integrative, plant-based interventions in addressing the complex needs of ageing populations affected by functional bowel disorders.

Patient information

Patient - A 79-year-old woman

Known case of – Hypertension (7 years) on regular medication.

Medical history of chronic constipation. She had been using stimulant laxatives (bisacodyl) daily for approximately 12 months to manage her constipation, which had worsened despite increasing the frequency of use.

Presenting complains (Table No. 1)

- Pain in abdominal.
- Fatigue
- Bloating
- Muscle cramps
- Dizziness

General examination

- Blood pressure 110/70 mmHg
- Pulse 78 bpm
- Temperature 97.6degree F

Laboratory investigation

- Hypokalaemia (serum potassium level - 3.0 mmol/L),
- Hyponatremia (serum sodium level - 115 mmol/L)

Systemic examination

- Respiratory system – B/L AEBE Clear
- Cardiovascular system – S_1 S_2 Positive
- Central nervous system – Conscious and oriented

Per abdomen – Soft and tenderness present at Left iliac fossa, Hypogastric region of abdomen.

Table: 1 **Timeline of Development of Symptoms**

Date	Development of Symptom	Other relevant Development
11 January 2025	Over the past 1year patient was having Chronic constipation. Symptoms of fatigue, bloating, muscle cramps, and dizziness, pain in abdominal were aggravating.	Her family reported that she had become dependent on the laxatives and had stopped eating regular meals, fearing they would exacerbate her constipation.
11 January 2025	After Laboratory investigation Electrolyte imbalance (low potassium, and sodium) was established.	Lab tests reveal hyponatremia and hypokalaemia.
13 January 2025	Clinical assessment done Soft and tenderness present at Left iliac fossa, Hypogastric region of abdomen On Auscultation of abdomen Bowel function was sluggish despite laxative use.	Ongoing discomfort and reliance on laxatives, no significant improvement in bowel movements. After initial assessment intervention planed and explained to patient and with the consent of patient study was started.

Diagnosis

Indicating dehydration and an imbalance of electrolytes. A diagnosis of laxative abuse with associated electrolyte disturbances was made.

The patient was instructed to stop the use of stimulant laxatives immediately. Given the complexity of her case, which included physical, psychological, and gastrointestinal concerns, the treatment plan incorporated *Cassia fistula* powder mixed with *triphala kwath* (Decoction) to restore normal bowel function, balance electrolytes, and reduce her reliance on synthetic laxatives.

Intervention

1. *Cassia Fistula powder*
2. *Triphala Kwath* (*Triphala kwath*, an Ayurvedic decoction composed of three fruits (*Emblica Officinalis*, *Terminalia Chebula*, and *Terminalia Bellirica*).
3. 100ml of *Drumstick juice* with pinch of black salt and pinch of *black pepper.*

The patient was prescribed a daily dose of *Cassia fistula* powder (3gm) mixed with *Triphala kwath* (Decoction) before bedtime Drumstick juice twice a day for a period of two weeks. (Table No. 2)

Remedie was used in combination with lifestyle changes, such as dietary modifications (increased fiber intake, adequate hydration), physical activity, and a schedule for gradual reintroduction of natural bowel regularity without the use of stimulant laxatives.

Outcomes

The patient was monitored closely over a three-weeks period following the initiation of the integrative therapeutic regimen. At her first follow-up visit, she reported a marked improvement in bowel function. Defecation had become more regular and spontaneous, and the compulsive reliance on stimulant laxatives had ceased. Additionally, she experienced a noticeable reduction in abdominal bloating, gastrointestinal discomfort, and systemic fatigue—symptoms frequently associated with chronic laxative misuse.[8]

On physical examination, her vital parameters were stable, and there were no clinical signs suggestive of dehydration, a common concern in elderly patients with chronic laxative use.[2] Laboratory investigations indicated the normalization of her serum electrolytes:

- Serum potassium: 4.2 mmol/L (Normal range: 3.5–5.0 mmol/L)
- Serum sodium: 136 mmol/L (Normal range: 136–145 mmol/L)

By the end of the 2nd follow up, the patient had transitioned to intermittent use of the herbal preparation (Table No 2), based on her bowel patterns rather than as a routine therapy. She expressed normalized bowel function and stabilized electrolytes. Significant reduction in symptoms.

Table: 2 **Timeline of Therapeutic Intervention**

Date	Intervention	Symptoms
13 January 2025 (Intervention started)	*Cassia fistula* powder 3gm with *Triphala kwath* before bedtime for 7 days. Patient stopped taking stimulant laxative. 100ml of *Drumstick juice* with pinch of black salt and pinch of *black pepper* twice a day.	
20 January 2025	The patient had transitioned to intermittent use of *Cassia fistula* powder 3gm with *Triphala kwath* alternate day. 100 ml of *Drumstick juice* with pinch of black salt and pinch of *black pepper* once in the morning.	Marked improvement in bowel function. Defecation had become more regular and spontaneous, and the compulsive reliance on stimulant laxatives had ceased.
27 January 2025	The patient was advice intermittent use of *Cassia fistula* powder 3gm with *Triphala kwath* alternate day for 1 more week. 100 ml of *Drumstick juice* with pinch of black salt and pinch of *black pepper* once in the morning.	Normalized bowel function and stabilized electrolytes. Significant reduction in symptoms.

03 February 2025	Medication was stopped. 100 ml of *Drumstick juice* with pinch of black salt and pinch of *black pepper* once on alternate day continued for 1 more week.	Normal gut motility achieved. Normalized bowel function.

She reported quality of life improved appreciably, highlighting enhanced energy levels and a sense of restored autonomy in her daily functioning.[9]

In line with a preventive and holistic care model, she was counselled on sustaining gastrointestinal health through a fibre-rich diet, adequate hydration, and the careful, as-needed use of natural remedies. The therapeutic approach not only targeted symptom control but also fostered patient education and empowerment—key tenets in the compassionate care of the ageing population.[5-10]

Discussion

Laxative abuse among elderly individuals is an increasingly recognised concern in clinical practice, often resulting in a cascade of physiological complications, including electrolyte disturbances, dehydration, impaired colonic motility, and structural gastrointestinal dysfunction.[2] This case underscores the need for a comprehensive and empathetic approach to the management of laxative dependence—one that includes the discontinuation of stimulant laxatives and the introduction of safer, plant-based alternatives with a more favourable risk profile.[1]

Cassia fistula (Indian laburnum), a botanical traditionally employed across several medical systems for its mild laxative and cooling properties, offers a gentle mechanism of action suitable for individuals with weakened gastrointestinal function.[3] Its primary active constituents, anthraquinone glycosides, stimulate colonic peristalsis while concurrently aiding stool softening, without producing the harsh, dependency-inducing effects often observed with synthetic stimulant agents such as senna or bisacodyl.[7] The patient in this case responded favourably to *Cassia fistula* therapy, with sustained improvement in bowel regularity and no recurrence of constipation—a reflection of both its physiological efficacy and tolerability in a geriatric context.

The formulation was complemented with *Triphala kwath*, an Ayurvedic decoction composed of three fruits (*Emblica officinalis*, *Terminalia chebula*, and *Terminalia bellirica*) known for their rasayana (rejuvenative) properties.[11] While *Cassia fistula* serves to promote evacuation, *Triphala* supports the restoration of colonic tone and motility. Together, the combination fosters a more balanced gastrointestinal response—stimulating transit without overburdening or desensitising the gut.[10] This is especially crucial in post-laxative abuse states, where the colon may become atonic and unresponsive. Moreover, the anti-inflammatory and mucosal healing properties of both herbs may play a restorative role, particularly in cases where prolonged stimulant use has aggravated Pitta-dominant gastrointestinal inflammation.[12]

Drumstick (Moringa oleifera) juice, when combined with small amounts of black salt and black pepper, may serve as a supportive remedy for individuals experiencing electrolyte imbalances. Moringa is known to be a rich source of essential minerals such as potassium, calcium, magnesium, and iron, which are crucial for maintaining electrolyte and fluid balance in the body.[13] The inclusion of black salt provides sodium, an important electrolyte that helps regulate hydration and nerve function. Additionally, black pepper contains piperine, a compound that enhances the bioavailability of nutrients, thereby improving the absorption of minerals and other active compounds present in moringa.[14]

This case therefore highlights the promise of a gentle, integrative regimen involving *Cassia fistula* and *Triphala kwath* in re-establishing healthy bowel habits without perpetuating a cycle of dependence. Nevertheless, while these findings are encouraging, broader clinical investigations are warranted to rigorously evaluate the safety, efficacy, and long-term outcomes of such interventions in diverse elderly populations.[5]

Limitations

This study was conducted on elderly patient who was overusing a laxative however, there is an opportunity to perform this intervention on a population group with laxative abuse.

Conclusion

Laxative misuse among older adults represents a clinically significant and multifaceted challenge, often necessitating an integrative and patient-centred approach to management.[2] This case highlights the therapeutic potential of *Cassia fistula* with triphala kwath (decoction) in the treatment of chronic constipation associated with stimulant laxative dependence. Drumstick juice support digestive health, reduce fatigue, and provide antioxidant benefits, which are particularly beneficial in the context of dehydration or fluid loss. Both botanical agents have demonstrated beneficial effects on gastrointestinal motility, stool consistency, and mucosal health, while maintaining a favourable safety profile.[1-7] The patient's positive response—marked by improved bowel function and reduced reliance on synthetic laxatives—illustrates the viability of such natural remedies in supporting gastrointestinal recovery in geriatric care.

While preliminary findings from this case are promising, further clinical studies are warranted to establish long-term efficacy, safety, and optimal usage protocols for these herbal interventions in elderly populations.[5]

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Declaration of generative AI in scientific writing
We hereby confirm that the manuscript is entirely the product of our original work. We affirm that no generative artificial intelligence tools or applications were employed at any stage of the manuscript's preparation, including but not limited to drafting, editing, or data analysis. The entirety of the scientific content, conclusions, and language has been developed through our independent expertise and diligent efforts, guided appropriately by our mentor, in strict accordance with the ethical and academic standards.

Author Contribution
Dr. Arvind Singh Sisodia: Conceptualization, methodology/study design, visual analysis, writing original draft, writing review and editing, Dr. Mahesh P. Jadhav: Software, validation, investigation, visualization, Dr. Sanjay C. Babar: Resources, data curation, writing review, supervision, project administration, Dr. Amit A. Paliwal: writing review, supervision Dr. Priyanka D. Patil: visualization, supervision.

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