

A Case Report of Delirium Induced by Herbal Laxative Senna

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ABSTRACT

Constipation is one major complaint in elderly population. It may be due to physiological and anatomical reasons of aging, but it can be also due chronic medical and mental illnesses and due to use of multiple medications. Constipation itself is a precipitating factor for delirium. Drugs used for constipation can also be the culprit. A 64-year-old female who had a history of hypertension and chronic constipation presented with symptoms of confused and altered behavior, decreased oral intake, decreased sleep. On history taking it was known that she was using Herbal medication containing senna glycoside and other compounds since 8-9 months. On examination she had signs of dehydration, disoriented and attention was impaired. On investigation her serum sodium was 122.6 mmol/ and other investigations were within normal limits. She was diagnosed as a case of Delirium according to ICD-10 criteria. Her dehydration was corrected by giving intravenous fluids and serum sodium level was corrected using salt capsules 2 tablets thrice daily. For disturbed sleep she was prescribed Tab Melatonin 10mg at bedtime and constipation was treated with per rectal enema and syrup lactulose 30ml at bedtime. Patient improved in 1 week time. Senna a herbal laxative used to treat constipation. It can alter intestinal electrolyte transportation and irritates intestinal mucosa. It is due to increased peristalsis and increased defecation and even diarrhea Prolonged use can cause dehydration, electrolyte imbalance and delirium. Senna, an over-the-counter laxative with FDA approval is a matter of concern in the current scenario. This case report warns into the judicious use of laxatives containing senna in elderly population.

Keywords: Delirium, Herbal Laxative, Senna, Constipation

INTRODUCTION

Constipation is common among the older patients with mental illnesses due to aggravated physiologic and anatomical changes, lifestyle factors, comorbid physical and mental issues, drugs, including psychotropics, and polypharmacy. Absence of convenient treatment and insufficient management may add to delay in treatment and low quality of life. Primary constipation is due to way of life alteration. (Dietary changes, work out, and active work), fiber intake, and laxatives when required. Secondary constipation ought to be treated with overseeing fundamental pathology or

inclining factors, including treatment of mental problems, and defending psychotropic treatment. ⁽¹⁾ Constipation is a precipitating factor for delirium. Literature shows that 17–40% of adults aged over 65 may have chronic constipation and 45% of frail older adults suffering from it. Over treatment with laxatives can bring about iatrogenic diahorrea, which can prompt dehydration and subsequent electrolyte disturbances and delirium. This can bring about expanded mortality and mortality, and a more extended stay in medical clinic. ⁽²⁾

CASE REPORT

A 64-year-old female was referred from a local health center to our hospital and then transferred from emergency department to the department of Geriatric Mental Health. She was a widow who lives with her son in a village and was functioning well prior to this episode. One evening 2 weeks prior to the admission she along with her son was watching television, her son asked for tea, so she went to the kitchen. She took longer time than usual in the kitchen; her son then saw that she added salt and turmeric in the tea, and she appeared to be confused. Gradually in a span of a week her sleep was disturbed, oral intake decreased, she was unable to identify family members, weakness developed. After a week she became bedridden and needed assistance in every day-to-day activity, she passed urine and stool in bed, her speech became irrelevant, at night she started picking her clothes and searching things.

On evaluation after admission, it was found that she was suffering from constipation for last 2 years for which she was taking some Herbal medication since 8-9 months. On detailed history taking it was found to be compound containing many substances like Senna Leaves, Jethi Madh Nishoth, Svarjika Kshara, Himej and black salt. Initially her bowel habit improved after taking around 10ml of the syrup but for last 2 months she was suffering from constipation despite increasing the dose to double for last 1.5 months. She was a known hypertensive for 10 years not on regular medication. There was no history of similar illness or any psychiatric illness in the past. She had no family history of any psychiatric illness. She was a homemaker by profession with no formal education and she does not have a history of any substance abuse. She attained menopause 15 years back.

On examination patient was restless and not following commands. Dehydration was present, her vitals were normal and there is no abnormality in systemic examination. Her psychomotor activity is increased, eye to eye contact was not

maintained. Her speech was irrelevant, reaction time was increased, and productivity of speech was decreased. She was not oriented to time, place, and person; her attention could not be drawn.

On investigation her serum sodium was 122.6 mmol/l, serum ca, serum mg, serum k was within normal range. Her CT brain shows metabolic encephalopathy picture. Blood investigations like complete blood count, thyroid function test, liver function test, renal function test was performed and are found to be normal. Urine routine microscopy was normal, and culture and sensitivity report show no significant growth. Her chest x ray and ECG was done, and it was normal.

She was diagnosed as a case of Delirium according to ICD-10 criteria. Her dehydration was corrected by giving intravenous fluids and serum sodium level was corrected using salt capsules 2 tablets thrice daily. For disturbed sleep she was prescribed Tab Melatonin 10mg at bedtime and constipation was treated with per rectal enema and syrup lactulose 30 ml at bedtime. Patient improved in 5 days on treatment and was discharged on the 7th day of admission.

Consent was taken from the patient for the case report.

DISCUSSION

Senna, an anthracine glycoside is made from *Cassia angustifolia* or *Cassia acutifolia* plant. They are used to treat constipation, large intestinal bowel wash before surgery and colonoscopy and for irritable bowel syndrome constipation subtype. Mode of administration can be per oral and per rectum. It starts working within minutes when given by mouth and within 12 hours per oral. It is a weaker laxative.^(3,4) Sennoside A in the laxative medication, has proven effective in inhibiting the ribonuclease H of HIV virus. The colonic bacteria help in hydrolysis of the compound into anthraquinones. Senna is considered appropriate for use in acute cases and is not considered an herb to be used regularly. It can cause loose stool and significant bowel

irritation when mixed traditionally with peppermint, fennel seed, ginger root etc. It will alter intestinal electrolyte transportation and irritates intestinal mucosa.^(5,6,7) The resultant increased peristalsis leads to mass peristaltic movements and increased defecation and even diarrhea. This will eventually lead to dehydration and electrolyte imbalance. There are two similar case reports in which Senna is the causative factor for hyponatremia.^(8,9) In this case this might be the reason for her presentation as she was using it for a prolonged period which might have altered her bowel mucosa and subsequent consequences.

CONCLUSION

This case report gives insight into use of laxatives by general population. Even though Senna is an over-the-counter laxative with FDA approval its use should be controlled, and it is a matter of concern in the current scenario. This case report also warns into the judicious use of laxatives in elderly population.

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