

Case Report

Chronic Constipation due to Hypercalcemia Associated with Parathyroid Adenoma: An Uncommon Presentation - A Brief Report

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A B S T R A C T

Constipation is a very common problem and many a times its cause remains obscure. We present a case of 55-year old women who presented with chronic constipation. Physical examination was essentially normal. Investigations revealed it to be a case of chronic constipation due to hypercalcemia which was associated with parathyroid adenoma. Constipation responded to parathyroidectomy. Clinicians must be aware of the fact that hypercalcemia associated with parathyroid adenoma can be one of the causes of chronic constipation.

Keywords: Chronic Constipation, Hypercalcemia, Parathyroidectomy

Introduction

Constipation is a frequently encountered problem in clinical practice. Prevalence of constipation in general population is around 20% (range 2%-27%).¹ Prevalence is almost double in elderly population and it is more severe in females. It frequently correlates with quality of life of these patients. Hypercalcemia is one of the causes of constipation. Chronic hypercalcemia in case of parathyroid adenoma can present with symptoms like weakness, fatigue, anorexia, nausea, vomiting, polydipsia, polyuria, weight loss, constipation, headaches, musculoskeletal pain and disorders, pathological fractures, renal stones, pancreatitis, anemia, and peptic ulcer.² Presentation with isolated constipation is rare.

Case Report

A 55-year-old postmenopausal woman presented in medical

outdoor with symptoms of chronic constipation associated with mild abdominal pain and discomfort for last 6 months. She was a postmenopausal lady with normal menstrual history. She did not take any hormone replacement therapy at any time. There was no past history of any surgery or significant medical illness. On physical examination, she was conscious, afebrile with pulse rate of 76 beats/min and BP of 130/86 mmHg. Her systemic examination was also normal. Her blood investigations revealed normal hemogram, serum calcium was 13.6 (8.5-10.5) mg/dL; serum intact PTH (IRMA) was 1771 pg/mL (normal range 10-65), serum phosphate-1.8 mg/dL (normal range 2.5-4.5) and serum alkaline phosphatase was 252 IU/L. Thyroid profile was normal. Parathyroid sestamibi scan which is used to localize abnormal parathyroid revealed an abnormal collection of radiotracers on both the inferior parathyroid

gland which suggestive of parathyroid adenoma (Figure 1). The patient was referred to surgery for neck exploration and parathyroidectomy. The patient was discharged five days after the surgery without any complication. Histopathology confirmed it to be parathyroid adenoma. Her postoperative serum calcium was 8.7 mg/dL, a month after the discharge and she was completely relieved of constipation.

Here, we have highlighted a case of chronic constipation due to hypercalcemia of parathyroid adenoma. Parathyroid adenoma typically presents as nephrolithiasis (30%), bone disease (2%), peptic ulcer disease (12%), psychiatric disorders (15%), muscle weakness (70%), constipation (32%), polyuria (28%), pancreatitis (1%), myalgia (54%) and arthralgia (54%).^{7, 8} However, parathyroid adenoma

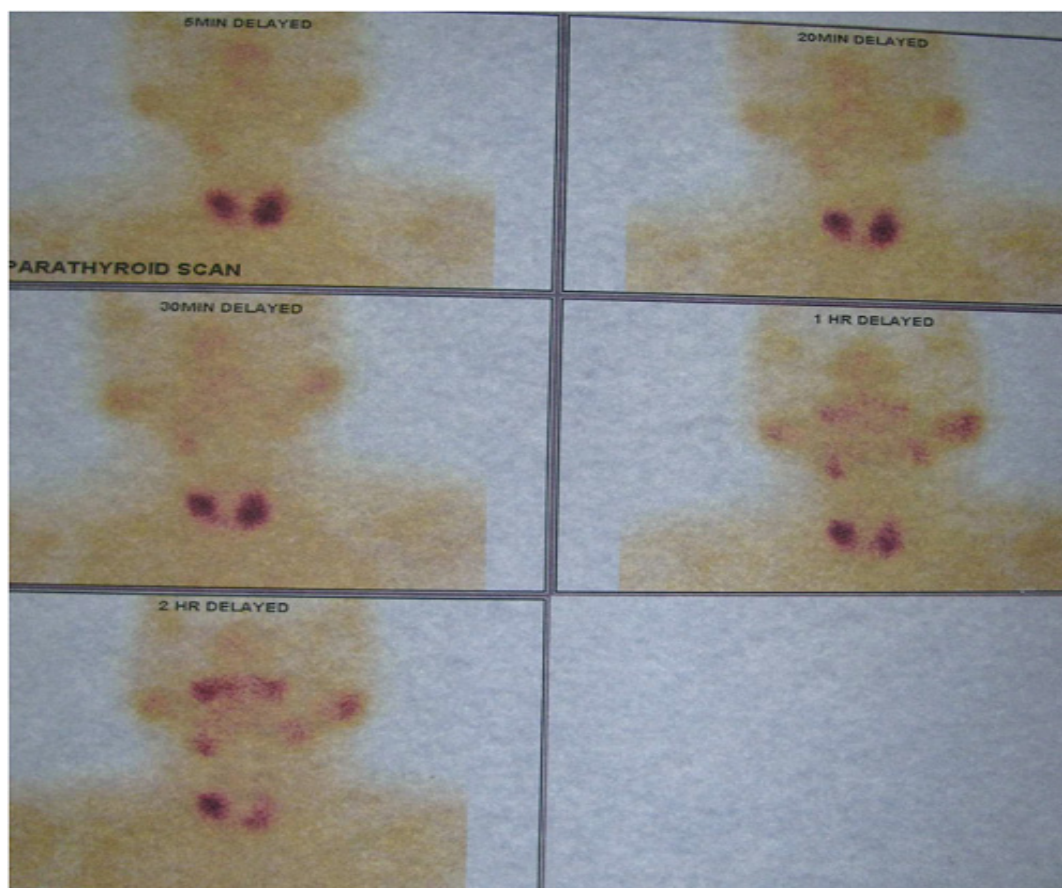


Figure 1. Parathyroid sestamibi scan revealed an abnormal collection of radiotracer on both the inferior parathyroid gland suggestive of parathyroid adenoma

Discussion

Parathyroid adenoma is the most common cause of primary hyperparathyroidism in approximately 85% of cases, gland hyperplasia and multiple adenomas in 15%, parathyroid carcinoma in around 1% of cases.³ Hyperparathyroidism is classified as primary, secondary which means increase in parathyroid hormone levels due to hypocalcaemia in conditions such as chronic renal failure and then tertiary which is caused by chronic stimulation of parathyroid glands.⁴ Incidence of primary hyperparathyroidism is 1 in 500 women and 1 in 2000 men older than 40 years of age.⁵ Primary hyperparathyroidism is usually asymptomatic and chronic but it is believed that parathyroid adenomas can start to secrete large amount of parathyroid hormone which results in extreme increase in calcium levels and even hypercalcaemic crisis.⁶

presenting with isolated clinical manifestation of chronic constipation is rare which was observed in the present case. Constipation seems to be associated with severity of disease. Metabolic parameters like increase in PTH, decreased phosphatemia, increased serum alkaline phosphatase level and increase in 24 hours urinary calcium indicate severity of disease in PHPT and are associated with increased frequency of constipation.⁹ Sestamibi scan of parathyroid is usually used to locate the abnormal hyperfunctioning parathyroid preoperatively. However, it can be used intra-operatively also. It should be remembered that this radionuclide scan should not be used to confirm the diagnosis of hyperparathyroidism.¹⁰ Parathyroidectomy results in improvements in the symptoms, as in our case.

To conclude, chronic constipation is usually associated with Primary Hyperparathyroidism (PHPT) and attributable to

hypercalcemia. Primary hyperparathyroidism should be kept in mind as a differential in all patients presenting with chronic constipation. Elevated serum PTH level confirms the diagnosis. Parathyroidectomy in such cases relieves constipation.

Conflicts of Interest: None

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