

## Case Report

## Chronic Hypocalcemia Complication, A Pictorial Presentation

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**Introduction**

**Case Presentation:** A 54 year female visited clinic with complain of muscle cramps and spasm. She was known case of epilepsy and had cataract. She was experiencing recurrent seizures since one year. Family history was negative for such kind of symptoms. On examination, the patient was normotensive; Chvostek's and Trousseau's signs were positive while systemic examination unremarkable. She is short heighted. Her serum sodium, potassium, magnesium, creatinine and thyroid function test were within normal range. Her serum calcium was 5.1 mg/dl (8.6 – 10.2) and phosphorous was 6.6 mg/dl (2.5 – 4.5). DEXA Scan for BMD showed osteoporosis. The CT scan brain is shown in Fig 1 and Fig 2. What is the diagnosis?

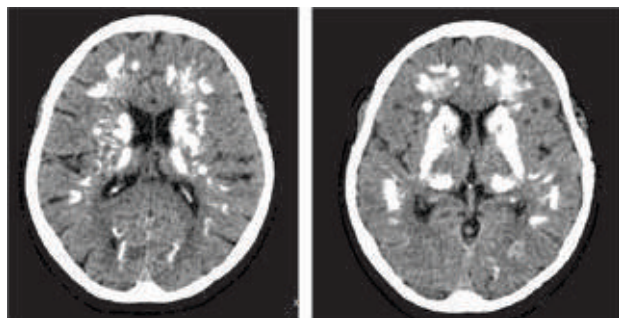


Fig 1

Fig 2

**Answer:** Hypoparathyroidism with basal ganglia calcification. Further workup showed iPTH : 51pg/ml (10-65 ), vitamin D : 28pg/ml, 24 hour urinary calcium 9.1 mg/day (100-300). Fig 1 and 2 showed extensive calcification of ventricles and basal ganglia. She was put on calcium supplement, calcium acetate and alphacalcidol. On subsequent follow ups she was stable with no further seizure episodes. Her repeat calcium levels were in range from 8.2– 8.9 mg/dl and phosphorous was 4.1 mg/dl.

Persistent hypocalcemia with a low or inappro-

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riately normal intact parathyroid hormone (iPTH) level and hyperphosphatemia, in the absence of hypomagnesemia, is diagnostic of hypoparathyroidism. A typical complication of chronic hypoparathyroidism is basal ganglia calcification.<sup>1</sup> The treatment goal should be no hypocalcemia symptoms, keeping calcium within low normal range, serum phosphate level within normal range, maintaining adequate vitamin D and calcium phosphate product below 55 mg/dl with normal serum magnesium level.<sup>2</sup> Among a lot of patients, these goals can be achieved through 1-2 gm/day elemental calcium and upto 2 mcg/day of calcitriol.<sup>3</sup>

**Conflict of Interest**

None

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None

**References**

1. Bilezikian JP, Khan A, Potts JT Jr, Brandi ML, Clarke BL, Shoback D, et al. Hypoparathyroidism in the adult: epidemiology, diagnosis, pathophysiology, target-organ involvement, treatment, and challenges for future research. J Bone Miner Res 2011;26(10):2317-37.
2. Marcucci G, Brandi ML. Conventional Treatment of hypoparathyroidism. Front Horm Res. 2019; 51(1): 160-4.
3. Bilezikian JP, Brandi ML, Cusano NE, Mannstadt M, Rejnmark L, Rizzoli R, et al. Management of hypoparathyroidism: present and future. J Clin Endocrinol Metab. 2016;101(6):2313-24.