Congenital Pseudohypoparathyroidism as a Cause of Seizures In a Newborn

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BACKGROUND: Neonatal hypocalcemia is either early onset (<3 days of age) or late onset (>3 days of age). Neonates with hypocalcemia can become asymptomatic, however in case of presenting the manifestations could be hypotonia, poor feeding, apnea, seizures or cardiac failure. Among the possible causes could be hypothyroidism, hypoparathyroidism (transient or primary). Diagnosis is based on the presence of hypocalcemia, hyperphosphatemia, and elevated PTH concentrations. Transient neonatal pseudohypoparathyroidism differs from other persistent type I and type II, because it is self-limited and has an adequate response to treatment.

OBJECTIVE: The case of a neonate is presented who had early onset seizure associated with hypocalcemia, hyperphosphatemia, and raised parathyroid hormone.

METHODS: We report a newborn with transient PHP who presented multifocal hypocalcemic seizures. We discuss this rare entity with reference to the recent literature.

RESULTS: The hypocalcemia was initially resistant to calcium therapy (100-300mg/kg/day) but responded to vitamin D analog therapy (400 IU/day). The diagnosis of 'neonatal pseudohypoparathyroidism' was entertained; the infant remained stable and seizure-free with normal serum biochemistry during the next months of follow-up (Table 1).

CONCLUSIONS: In conclusion, in case of late-onset neonatal seizure secondary to hypocalcemia, in relation with hyperphosphatemia and raised PTH, the diagnosis of transient pseudohypoparathyroidism should be considered. The diagnostic path must consider all the possible differential diagnoses in order to undertake a timely and correct course of treatment where calcium and vitamin D are the corner stone.

Date	19.01	20.01	21.01	22.01	25.01	27.01	17.02	17.04
Calcium (mg/dL)	5.8	6.9	9.1	9.64	9.6	8.9	10.92	10.67
Phosphorus (mg/dL)	9.04	9.31		9.05	9.82	8.88	6.58	6.23
Magnesium (mg/dL)	1.25		2.55	2.61	2.15	1.9	2.25	2.2
PTH (pg/mL)		94.09			78.38		57.18	65.74

Table 1. Monitoring of patient laboratories.

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