ORIGINAL RESEARCH PAPER

Emergency Medicine

A CASE OF ACUTE FLACCID PARALYSIS IN EMERGENCY ROOM: THINK POTASSIUM

KEY WORDS:

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INTRODUCTION :

Acute flaccid paralysis(AFP) is one of the life threatening presentation in ER. Among all etiologies of AFP i.e. cervical spine injuries, guillain barre syndrome (GBS), viral myositis, myasthenia gravis,thyrotoxicosis,dengue viral fever etc., Hypokalemic paralysis is commonest, easily treatable and reversible cause of AFP. Hypokalemic paralysis is heterogeneous group of disorders which is characterized by a sudden onset of reversible muscle paralysis. The etiology can be attributed to various factors and can be either idiopathic or due to secondary causes. The approach to a case of Hypokalemic Paralysis involves identifying the underlying etiology and prompt replenishment and maintenance of the potassium levels. Further management depends on the cause, frequency of attacks, severity of symptoms and the duration of the illness.

- **Case History:-**
- A 26yr male pt. admitted with chief complaint of:-
- Increase frequency of stool and vomiting since 3 days.
- Weakness of all 4 limbs since 1day.
- Vitals on admission-
- T=normal
- P=92/min
- Blood pressure=90/60 mm of hg
- RBS=172mg%
- Spo2-97% on room air
- k/c/o DM type2 on OHA since 4yrs
- P/h/o same episode before 8 months
- No p/h/o hypertension, T.B., CVA, Asthma, Convulsion
- Personal h/o increase bowel habit. Altered bladder, sleep appetite since 2 days,
- No addiction h/o tobacco, alcohol, drug substances
- On examination :-
- Pt. was conscious and oriented to time, place and person.
- Respiratory system :-NAD

- Cardiovascular system:-NAD.
- P/A:-NAD

- **Central nervous system:-**
- Weakness of Lower Limb f/b Upper Limb, proximal f/b distal, Lt. f/b Rt.
- conscious and oriented, Normal higher function
- Power
- Cranial nerves -normal
- Motor –
- Power

3	3
2	2

- Planter – bilateral flexor
- Pupil B/L 2mm R->L
- Tone : Decrease in all 4 limbs
- DTR

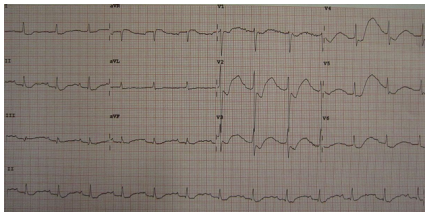
	BRACHIAL	TRICEP	SUPINATOR	KNEE	ANKLE
RIGHT	+	+	+	+	+
LEFT	++	+	++	+	+

Sensory- normal
Cerebellum- can't assessed

- **INVESTIGATION :**
- ON ADMISSION
- CBC:-
- HB-13.4gm/dl TLC-8070/cumm APC-2.23/mcumm

- Urea:15
- Creat:0.68
- K:2.0
- Na:135
- ALT and AST :normal
- Total Billi. N direct billi. :normal
- S.Acetone:normal
- ABGA with electrolytes:-
- pH-7.445
- pCO2-29.2
- pO2-101.9
- Na-140
- K-low
- Hco3-20.6
- O2 sat.-98.3

- **ECG –**



- St depression

Prominent u wave
Flat t wave
Pr interval prolong
Qt prolong

On subsequent days:-

- S.TSH-1.89(0.49-4.67)
- F.T3-2.72(1.45-3.48)
- F.T4-1.18(0.71-1.85)
- S.B12-360(208-964)
- S.Mg+2-1.7(low)
- S.po4-low

- HBA1C-7.3%
- C-PEPTIDE-5.06(.81-3.85)

- 24hr urine analysis:-
- U.PBG(porphobillinogen):normal
- U.k+:2.0
- U.na+:60
- U.cl-:89
- Normal urine routine micro report
- Total protein:6.63
- Albumin:3.3
- Total cholesterol:-147
- MISC. tests:-
- CSF R/M n C/S:-NORMAL cell count and protein, glucose level, electrolyte level.NO any organisms.
- T.CPK-332(NORMAL)
- ANA BY IF:-NEGATIVE
- NERVE CONDUCTION VELOCITY(NCV)-
- Sensory nerve conduction normal.

- EMG-
- Fibrillation and complex repetitive discharges, increase by cold and decrease by exercise
- USG Abd / KUB-normal
- Chest xray –NAD
- Fundus-NAD
- On admission:-
- Fluid resuscitation
- Antibiotics
- Antipyretic
- W/H OHA-ŕinj. H. insulin acco.to RBS 6 hrly
- Syp. potchlor
- Cocconut water
- On discharge:- DAY 5
- CNS EXAMINATION:-
- Power of all limb muscles-

5	5
5	5

- Planter b/l flexor
- Tone- normal
- Urea:18
- Creat:0.72
- K:4.1
- Na:139
- W/H inj. H. insulin ŕOHA
- AVOID STRANEOUS EXERCISE
- AVOID HIGH CARBOHYDRATE DIET
- T.Acetazolamide(250) B.D.

DISCUSSION:

Acquired cases of hypokalemic Paralysis have been described in association with hyperthyroidism. Weakness is a common, albeit non-specific, presentation in both the emergency and outpatient setting. Although the differential diagnosis for the complaint of weakness is extensive the focus is considerably narrowed when a patient presents with a demonstrable decrease in muscle strength on physical exam. Strokes and tumors causing nerve compression are potentially life-threatening and must be ruled out first. Other relatively common neurologic concerns include post-ictal paralysis or one of the various motor neuron diseases. Diagnosis of these disorders requires obtaining a complete history with special consideration of timing, duration, and distribution of symptoms. Hypokalemic Paralysis is often overlooked in the initial work-up.

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