The Aetiological, Clinical and Metabolic Profile of Hypokalemic Periodic Paralysis in an Indian Population

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Hypokalemic periodic paralysis (HPP) represents a heterogeneous group of disorders that presents with acute muscular weakness and is at times, potentially life threatening. When recognized and treated appropriately, patients recover without much clinical sequelae

Methods

1.The data of all patients who presented with HPP from the years 1995 to 2001 were retrospectively analysed (n=31)

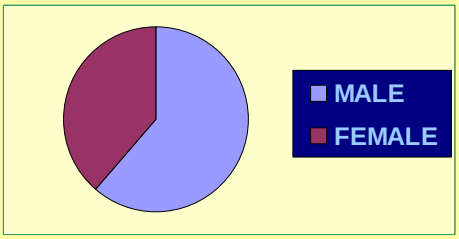
2.HPP was defined as acute loss of muscle power with an inability to ambulate with documented plasma potassium levels less than 3.5 mEq/L during the episode

Demography (n=31)

Age 11- 68 years
Mean Age 34.5 years

SEX

19 males, 12 females

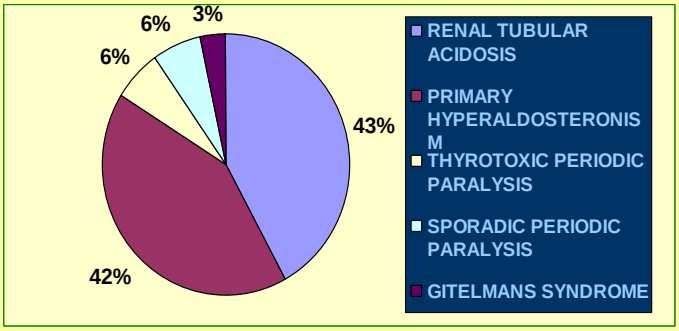


Presentation (n=31)

Duration of illness before presentation
Mean duration 23 months
Range 1-92 months

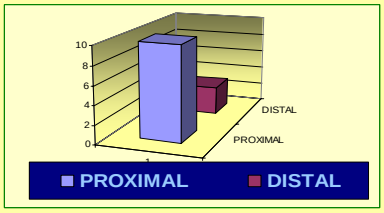
Number of Episodes / patient
Mean 4 episodes/patient
Range 1-15 episodes

Etiology (n=31)



Renal tubular acidosis (n = 13)

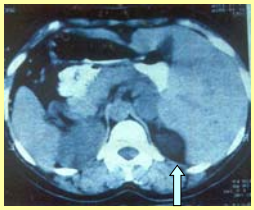
Patients with RTA had
Lower serum HCO_3 (18.7 ± 4.6, p <0.05)
& Higher levels of Cl (107.5 ± 6.0, p <0.05)



Three patients had Sjogren's syndrome

Primary hyperaldosteronism (n = 13)

All 13 had severe hypertension >110 mm Hg diastolic blood pressure proven to have adrenal adenomas by imaging



All 13 underwent successful adrenalectomy as definitive therapy

Others (n = 5)

Two patients had subtle clinical symptoms and signs of thyrotoxicosis

Two patients were diagnosed to have sporadic periodic paralysis based on the age of onset (< 25years), no family history and normal tubular and thyroid functions

One patient had Gitelman's syndrome with severe hypokalemia, hypomagnesaemia, hypophosphatemia and hypocalciuria. Two of his children were screened and found to have similar biochemical abnormalities

Summary

This Indian series had a high proportion of secondary causes for HPP

A significant proportion had primary hyperaldosteronism, which is a reversible condition

Renal tubular acidosis was an important medically treatable cause