Atypical presentation of Adrenal Insufficiency

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Background:

Addison disease can be difficult to detect at first because early symptoms are similar to other health conditions.Initial symptoms can include fatigue,poor appitite,increase thirst,dehydration.Later symptoms include low blood pressure,dizziness,fainting, vomiting,abdominal pain,disclouration of skin,low sugars.

Addison disease can present with adrenal crises.AD mostly because of auto antibodies cause remains unclear,may be due to tuberculosis,fungal,trauma or metastasis.Signs and symptoms depends which part of the adrenal cortex is effected by the autoantbodies,the aldesterone will be absent if the glamorousa effected,if the fasciculate involved the cortisol or if the reticularis effected the sex androgens will be effected

Case presentation summary:10 years old boy presented to ED with lethargy for the last two weeks.one day history of vomiting.Past medical history not significant. two weeks back with history of cellulites secondary to insect bite. Generally healthy.Vitals stable.Systemic examination normal.No pigmentation noted.History of premature Adrenarche noted.Initial investigations showed Sodium 120mmol/l and remained low despite replacement therapy,Potassium, urea /creatinine, blood gas,bone profile,17OHP,renin, serum and urine osmolilty within the normal range.MRI brain showed pineal cyst.
Bolus of normal saline 10ml/kg was given followed by maintenance fluids.Repeated Soduim was 124mmol/l.child was clinically well, wean off the fluids and repeated the sodium after 8 hours which dropped to 122mmol/l. No response to trial of restricted fluids.Short synecthen test was performed which showed poor response.Wean off IV fluids was successful after starting stress dose of hydrocortisone followed by maintenance dose of hydrocortisone with florinef.

Conclusion:

Normal potassium levels does not rule out Addison disease.Addison disease can present with normal potassium levels in about 60—70% and in 90% with low sodium initially.Aldesterone causes increase excretion of potassium. If the child sodium levels dropped after correction, advice proactive testing for cortisol rather then go for further advance testing. which helps to avoids the delay in diagnosis treatment.

Test name	11/8/17	12/8/17	13/8/17	14/8/17	15/8/17	
p-soduim	120	124	122	129	134	
p-potassuim	5.3	4.5	4.4	4.6	3.8	
p-urea	5.2	4.4	3.7	2.7	1.8	

ACTH	11/8/17(11:10)	12/8/17(11:40)	12/8/17(12:10)
p-cortisol	134	128	133

References:pai,shawN,hogler w,salt-losing crises in infants not always of adrenal origin.Eur J pediatr 2012;171:317,patric AD,lake bdmdefeciency of acid lipase in wolman disease.nature 1969;222:1067.akin L,kurtogln s,kindirci m,etal,primary adrenal failure due to viral infection in an infant,eur J pediatr 2010;169:887.