INFANTILE FAILURE TO THRIVE DESPITE APPROPRIATE MANAGEMENT: A CASE OF PSEUDO-BARTTER'S SYNDROME

S S. Zivanovic (1), LJ Saranac, (1) G Kostic (1), P Minic (2)
(1) Clinical Center Children's University Clinic - Nis Serbia (Yugoslavia)
(2) Institute of Mother and Child Health Care of Serbia “Dr Vukan Cupic” - Belgrade Serbia (Yugoslavia)

Female infant, 2.5 months old, is presented, who is hospitalized for rejecting meals, vomiting, diarrhea and cough.

Pregnancy and the birth were normal. Birth of weight was 3350gr, birth of length 51cm, Apgar score 9. Due to having cough, the child was treated with antibiotic in the ambulance conditions.

At the time of admission, the infant had body weight 4600gr, with vital signs: body temperature of 37.2 °C, pulse rate 150 beats per minute, respiratory rate 30 breaths per minute and oxygen saturation 92.7% on room air. Pale skin, lower turgor and elasticity.

Laboratory investigation showed a haemoglobin level 159 g/dl, a white blood cell count of 14x10^3/uL (lymphocytes 39.4% monocytes 18.2% neutrophils 42.4%), a hematocrit 50.2 %, a platelet count 402x10^3/uL. His routine biochemical investigation, which included sedimentation, CRP, glucose, renal and liver functions and urin analysis, were normal. Electrolytes level: hyponatremia (Na: 128 and 110 mmol/l), hypokalemia (K: 2.6 mmol/l) and hypochloremia (Cl: 63 mmol/l) with metabolic alkalosis (HCO3: 45.9 and BE: +20.9 mmol/l). Sweat testing revealed a sweat sodium of: 110 and 81,6 mmol/L. DNA analysis revealed the female to be homozygous for the delta F 508 mutation.

Having been hospitalized, the clinical picture of bronchiolitis (dyspnea, tachypnea, wheezing, hypoxemia) developed in the infant. The treatment included symptomatic and oxygen therapy. Metabolism disorders: hyponatremia, hypokalemia and hypochloremia were regulated. Even though having adequate caloric intake and supplementation of pancreas enzymes further on, due to excessive perspiration the infant showed tendency towards the "syndrome of losing salt", thus, it had hypertonic solution (5.85 NaCl 2 ml per kilogram BW) in the summer when the body weight drastically increases. Further growth and improvement was normal, as well as the body mass index.

Conclusion: Pseudo-Bartter syndrome is a rare syndrome. It is characterized by loss of electrolytes, alkalosis and persistent bad condition and progression which may be an initial presentation of CF. Hyponatremia, hypokalemia and hypochloremia point to this condition. Together with the clinical picture of bronchiolitis in the time of the year when it is not customary (May, when our patient is concerned), thus, this indicates further examination in order to set the exact diagnosis of the basic disease.