HOUDA NASSIH, *A BOURRAHOUAT AND I AIT SAB
Department of Pediatrics, Child and Mother Hospital, Mohammed VI University Hospital Center, Marrakesh Medical and Pharmacy Faculty, Caddy Ayad University, City of Marrakesh, Morocco.
**houda.ped@gmail.com*

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Cephalic Tetanus Presenting as Ptosis

A 7-year-old unimmunized boy developed cephalic tetanus following chronic suppurative otitis media. We wish to emphasize that possibility of cephalic tetanus should be considered in an unimmunized child presenting with ptosis.

Keywords: *Immunization, Management, Otitis media.*

Tetanus can be generalized or localized. Cephalic tetanus is a rare variant of localized tetanus, involving 1 to 3% of total reported cases [1]. The objective of this report is to describe a case of tetanus secondary to chronic suppurative otitis media in an unimmunized child, presenting with isolated ptosis, an unusual presentation of cephalic tetanus.

A 7-year-old boy belonging to a low socioeconomic status family, presented in the pediatric casualty. Five days prior to hospital admission, parents noticed child having oral ulcers secondary to tongue biting. Since 3 days, he was having multiple episodes of intermittent tightening of all 4 limbs lasting for few seconds and clinching of teeth during which he sustained multiple tongue bites. During these events, child was conscious, no facial deviation/asymmetry and no bladder bowel incontinence. There was no history of fever, trauma, animal bite or recent vaccination history. There was no history of difficulty in feeding, breathing or arching of body/opisthotonus. Child was having left ear discharge on-and-off since two years of age, for which he was taking treatment from local practitioner.

On examination at admission, child was conscious, following commands, and hemodynamically stable. On oral examination showed multiple cuts on tongue with oral ulcers. There was reflex spasm of masseters on touching the posterior pharyngeal wall (spatula test - positive). Left eye ptosis was present. Rest of the cranial nerves examination including pupillary reactions were normal. During examination child had tightening of all four limbs with teeth clinching lasting for less than a minute. He was conscious during the event which was self-aborted. CNS examination done after this event was normal. Baseline hematological work-up, liver and renal function tests and serum calcium and electrolytes were normal. Lumbar puncture and cranial computed tomography (CECT Head) were normal.

By the history, examination and his unimmunized status, tetanus was strongly suspected and was started on treatment for tetanus in the form of intravenous. Ceftrioxane and metronidazole, along with supportive management. Intramuscular and intrathecal tetanus immunoglobulin (TIG) along with one dose of tetanus toxoid was given. Intravenous diazepam was started to control spasms. He was monitored for neurological and respiratory deterioration. Child started improving clinically, tetanic spasms reduced and diazepam was tapered slowly and was discharged on oral diazepam on the 14th day of admission. The parents were counselled and planned for catch up immunization. He was followed-up one week after discharge, with full recovery of ptosis, no spasms. The otorrhoea had ceased.

Tetanus is strictly a clinical diagnosis, there is no laboratory test to confirm it. In our case the diagnosis was strongly suspected by the history, examination and unimmunized status of child.

Cephalic tetanus is defined as a combination of trismus and paralysis of one or more cranial nerves. The facial nerve is most frequently implicated but cranial nerves III, IV, VI, VII, and XII may also be affected [2,3]. Facial nerve palsy without trismus at presentation could be the first sign of

cephalic tetanus [4]. Cephalic tetanus usually follows middle ear infections like suppurative otitis media, as in our case or craniofacial injuries [1]. Such otogenic tetanus are common in the pediatric age group which may be explained by the immune status and frequency of middle ear infections. This case was rare in its type as it presented with isolated ptosis without any other cranial nerve involvement, unlike the cephalic tetanus reported earlier with trismus, ptosis and facial palsy mimicking Bell's palsy. Around 2/3rd patients with cephalic tetanus progress to generalized tetanus, which could be a possible reason fo the generalized spasms in this child.

The mechanism of cranial nerve palsies is not fully understood but few studies have given explanations like swelling of facial nerve under the influence of the toxin leading to strangulation in the stylo-mastoid canal, third-nerve lesions due to intense absorption of toxin from the orbicularis and ciliary regions, which are supplied by this nerve.

Survival rates in children receiving tetanus immunoglobulins *via* the dual route were significantly higher compared with children who received the intramuscular immunoglobulin only [5-7] and hence we preferred dual route for TIG administration.

High index of suspicion for tetanus should be considered in an unimmunized child presenting with ptosis without apparent trismus or facial palsy.

Contributors: MS: designed and drafted the manuscript; SG: concept and analyzed the manuscript; MY: helped in data analysis.

Funding; None; *Competing interest*: None stated.

MEENAKSHI SESAMA*, SUNIL GOMBER AND MUKESH YADAV
Department of Pediatrics, University College of Medical Sciences and Guru Teg Bahadur Hospital, University of Delhi, Delhi, India.
**meenakshisesama@gmail.com*

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An Infant with Milky Serum and a Rare Mutation

A 40-day-infant having milky serum, eruptive xanthomas, hepatosplenomegaly, lipemia retinalis, high cholesterol and triglyceride, was found to have lipoprotein lipase (LPL) deficiency on genetic workup. Triglyceride decreased with dietary fat restriction, medium chain triglyceride and fibrates. LPL deficiency in early infancy can be treated with pharmacological and dietary interventions.

Keywords: *Hypertriglyceridemia, Lipoprotein lipase, Outcome*

Familial chylomicronemia syndrome (FCS) is an autosomal recessive disorder of lipoprotein metabolism due to deficiency of lipoprotein lipase or Apo C II deficiency or presence of inhibitor to lipoprotein lipase. About 25% of FCS cases usually diagnosed during infancy [1]. We present a 40-day-old child with milky serum diagnosed to have lipoprotein lipase deficiency.

A 40-day-old female infant presented with 1 day history of poor feeding and lethargy. The baby was a product of non consanguineous marriage, born at term by vaginal delivery with birth weight of 2.8 kg. Antenatal and post natal period was uneventful. Child was exclusively breastfed since birth. Child has a healthy elder sister. On blood sampling for possible sepsis, child's blood was found to be pinkish white and viscous, which gradually turned into milky white after some time. She had hepatosplenomegaly and eruptive xanthomas over knee, face and buttocks. Liver and renal functions were normal. Sepsis markers were negative. Blood and urine cultures were sterile. Ultrasound abdomen revealed hepato-