Cephalic Tetanus with Left Infranuclear Facial Palsy

VK Sharma*, TN Dubey**, R Nayak***, A Agarwal***

Abstract

We report a case of a 11 years old male who developed trismus associated with left infranuclear facial palsy following injury over forehead. Cephalic tetanus was diagnosed. Rarity of the case as well as mild course it ran, though the incubation period was less than seven days, is the reason for this case report.

INTRODUCTION

Cephalic tetanus, a rare condition, variously known as kopftetanus and tetanus hydrophobicus is a subtype of tetanus in which cranial nerve palsy often precede trismus. The recognition and first description of the disease is usually ascribed to Rose, by whom the name tetanus hydrophobicus was given. At present, the term cephalic tetanus is applied to those cases which present as paralysis or paresis of one or more of the cranial nerves as a prominent symptom, together with more or less well-marked symptoms of tetanus, generally confined to the region of head and neck, though at times involving the entire body. The severity of tetanus is usually inversely proportional to the duration of the incubation period, periods of seven days or less carrying a grave prognosis. In this case however, the incubation period was 3 days and the disease ran a mild course.

CASE REPORT

Eleven years male came to our clinic with history of locked jaw and inability to close his left eye and deviation of angle of mouth. He had history of fall 3 days back from wall of 6 feet height with small superficial laceration over forehead. He didn’t receive tetanus toxoid and tetanus immunization history was not clearly known to patient and his relatives. There was no history of pain, fever and seizures. There was no history of loss or impairment of consciousness.

On examination, he was afebrile, pulse was 90/minute and BP was 110/80 mm Hg. The examination of respiratory, cardiovascular and abdomen was unremarkable. There was locked jaw, complete left sided prosopoplegia determined by marked drooping of corner of mouth, obliteration of nasolabial fold and inability to close the eye or make a grimace on the left side of his face. Lower cranial nerves could not be tested due to trismus. Other cranial nerves examination was normal. No abdominal rigidity and neck stiffness was present. There was no autonomic dysfunction. No spasm of respiratory and laryngeal muscles was there. There was no painful lesion in the region of jaw such as dental abscess, parapharyngeal or retropharyngeal abscess.

Full blood count and ESR was normal. Random blood sugar was 86 mg/dl, blood urea was 22 mg/dl and serum creatinine was 0.5 mg/dl. Urine examination was also normal. CT scan (P +C) was normal.

A course of penicillin was given. He was given 5000u of tetanus immunoglobulin intramuscularly, although presentation of patient was late and infusion of diazepam and methocarbamol was given to control spasms. Patient was observed in hospital for 7 days. He did not develop any new symptoms during stay and locked jaw was improved to 50% and patient was able to speak clearly and able to eat. The patient came in OPD after one month and had almost recovered.

DISCUSSION

Clinical tetanus comprises four symptomatic types: generalized, local, cephalic and neonatal tetanus. Cephalic tetanus, subtype of tetanus, is a rare disease, where one or more cranial nerves specially seventh, and nerves supplying extraocular muscles may involve. The incidence of cephalic tetanus ranges from 0.9% to 3.0%. Patients often have a history of trauma, tooth extraction, or chronic tympanitis. The infranuclear type of seventh cranial nerve palsy may precede trismus and may be misdiagnosed as Bell’s palsy. The severity of tetanus is usually inversely proportional to the duration of the incubation period, periods of seven days or less carrying a grave prognosis. It follows wounds of face and head, otitis media, local injury or may be no history of trauma. Cephalic tetanus which presents with cranial nerve palsy is always scored as severe or very severe since approximately two-third of cases progress to generalised tetanus. Those cases in which there is no generalised progression may have good prognosis and cranial nerve palsy associated with tetanus is not necessarily of bad
Recovery of cranial nerve palsy within about two months is usual if the patient survives the early illness. Site of lesion and nature of the pathology in cephalic tetanus is still not established. It is generally told that cranial nerve nuclei are damaged.  

**CONCLUSION**

When a patient presents with facial palsy in the presence or absence of any history of trauma, a differential diagnosis of cephalic tetanus should always be kept in mind. Although the prognosis in cephalic tetanus, as per literature, is inversely proportional to the duration of incubation period but in our patient recovery occurred despite short incubation period of 3 days. This case suggests that a cranial nerve palsy associated with tetanus is not necessarily of bad prognostic significance.  

**REFERENCES**