CASE REPORT

CEPHALIC TETANUS: A CASE REPORT IN 68-YEAR-OLD MAN

Ahmad Faraz, Nida Nousheen Ahmed*, Aimen Liaqat*
Karachi Medical and Dental College, *Dow University of Health Sciences, Karachi-Pakistan

Cephalic tetanus is an emergency condition, which is commonly observed in child age group here we report a case of 68-year-old man with the complain of right sided weakness for one day, associated with difficulty in breathing and speech, history of fall also present, case was diagnosed as cephalic tetanus. Here we report a case of cephalic tetanus in an elderly patient.

Keywords: Cephalic tetanus; Old patient; Tetanus
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INTRODUCTION

Tetanus is a clinical condition which has decisive neurological and muscular impacts caused by tetanospasmins caused by an obligate anaerobic, motile Gram-positive rod which is a protein toxin produced by Clostridium tetani; found in soil, houses, operation theatre and hospitals.[1–3] Clinically, tetanus has three variants local, generalized and neonatal, article review shows that cephalic tetanus has been seen as a rare type of local tetanus ranging from 1–3%, and its postulates are trismus with paralytic involvement of several cranial nerves.[3] In United States of America, an average of 90/year cases have been reported due to the mass immunization programs in the society.[4] The major presenting symptom is trismus, others include several cranial nerve palsies, facial pain, dysphagia, dysarthria, risus sardonicus (spasms of the face and jaw), opisthotonus (an arched back), spasms, voiding difficulties, abdominal pain and gastrointestinal manifestations, and mental impacts.[5,6]

When a patient presents with trismus and paralysis of several cranial nerves with the healed peripheral injury in the recent times, cephalic tetanus should be included in the differential diagnosis.

CASE PRESENTATION

A 68-year-old male was admitted through emergency with weakness of right side of the face for 1 day associated with difficulty in speech and swallowing.

Patient had history of fall on ground 10 days ago, sustained mild abrasions, but, did not seek any medical treatment. For last 1 day patient complained of dribbling of saliva from right side of mouth, difficulty in opening eye followed by difficulty in swallowing and speech. He had no co-morbid conditions, do not smoke and had no significant past medical or surgical history. Rest of the systemic query was unremarkable.

On clinical examination, patient was tall lean person, vitally stable, alert conscious with slurred speech. Signs of right VII (facial nerve) palsy were elicit able. Pupils were bilaterally reactive with preserved corneal and conjunctival reflex. He had weak gag reflex with deviation of tongue towards right side on protrusion. Motor examination of upper and lower limb was normal with down going planters. Rest of the clinical examination was unremarkable.

During the hospital stay, on second day patient become vitally unstable with tachycardia, tachypnea with decrease oxygen saturation on pulse oximeter. Marked spasm noted on face with inability to open and difficulty in breathing.

An urgent tracheostomy was planned and patient was shifted to ICU. Soon after maintenance of airway, breathing settles over few hours and vitals return to baseline.

In lieu of clinical state, TIG (tetanus Immunoglobulin) were given along with magnesium sulphate infusion and Penicillin G. His spells of spasm were controlled with diazepam intermittently.

Over few days' patient episodes of spam declines. No autonomic instability noted during the period.

Patient remain under medical treatment; on 10th day his tracheostomy was removed and he was discharged next day. His follow up visit after 1 week was unremarkable except for symptoms of UTI (urinary tract infection) He was further advised to continue with physiotherapy and T.T (tetanus toxoid) at 1 month.

DISCUSSION

Cephalic tetanus is one of the very rare and neglected disease which is only and solely diagnosed on the grounds of clinical history, clinicians in the modern era where scientific research and clinical diagnosis is totally based on various diagnostic tools, resulting in ignorance of the clinical history and presenting complain of the patient because diagnosis of cephalic tetanus imperils on the clinical history. Delay in diagnosis and management worsens condition of the patient that may put patient in need of invasive procedures such as tracheostomy might be indicated, imposing further complications on the chronically ill patient.[7] Location of injury is one of the important

prognostic factor of tetanus, injuries which are close to the head region can more commonly lead to cephalic tetanus, but peripheral injuries can also end in cephalic tetanus.[8] The initial presenting features are neck stiffness, sore throat and decreased mouth opening also along with pharyngeal-laryngeal spasm. When not managed properly, this can complicate into lockjaw (trismus) and facial stiffness (risus sardonicus). Dysphagia can lead to bronchoaspiration and due to release of the neuromuscular blockers leading to a back bent in spasm (opisthotonus).The most dynamiting condition occurs due to the paralysis of respiratory and laryngeal muscles, causing difficulty in breathing leading to death,[9] delay in the medical diagnosis of the patient leads to the autonomic instability, resulting in tachycardia , high grade fever, hypertension ,excessive sweating and salivation, hyperkinetic circulation , if mouth and pharynx are not cleansed through suction tube this can cause proliferation of normal flora which can put patient in generalized sepsis., as in our case patient become vitally instable on the second day of the admission with tachycardia, tachypnea with decrease oxygen saturation on pulse oximeter and tracheostomy tube was passed to prevent the respiratory arrest ,article review shows that passing tracheostomy at early stage improves the prognosis of the patient.[10]

Marked spasm noted on face with inability to open and difficulty in breathing. Patient also developed facial palsy which is a common presentation in the cephalic tetanus.[11] Cephalic Tetanus can be protected by tetanus vaccination, but vaccination loses protection if booster doses are not administered after every 10 year of primary vaccination.[12,13] In our case we used botulinum toxin to treat the patient , because it reducing the risk of aspiration pneumonia, allowing mouth care and also food intake.[14,15] Patient was also given with diazepam, magnesium sulphate and penicillin G as a medical treatment, as they play a pivotal role in the prevention of complication. Thus, patient with facial palsy along with the recent history of fall should undergo proper assessment for cephalic tetanus, thus we report a case of cephalic tetanus with relevant article reviews of cephalic tetanus that presented with the similar symptoms to that of this reported case.

Conflicts of interest: There are no conflicts of interest related to this article.

Ethical approval: The case report has been ethically approved by the ERB of Karachi Medical and Dental College

Informed consent: Informed consent has been written and taken from the patient regarding the publishing in a journal.

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Address for Correspondence:

Ahmad Faraz, Department of Surgery, Karachi Medical and Dental College, Karachi-Pakistan
Cell: +92 305 233 8154
Email: farazdr@live.com