

Case Report

Tooth pain management of chronic pulpitis in a patient with toxic epidermal necrolysis- A Case Report

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ABSTRACT

Toxic epidermal necrolysis (TEN) is acute life threatening mucocutaneous reactions due to various drugs. Oxycam NSAIDs, Acetic acid NSAIDs (e.g.: diclofenac), aminopenicillins and Cephalosporins are lower risk group of drugs that cause epidermal necrolysis. Protocol for medication is early recognition and withdrawal of the offending drugs and supportive care. Healing of extracted socket and mucosa is compromised due to various factors of toxic epidermal necrolysis. Impaired alimentation, photophobia and painful micturition and malabsorption cause impaired wound healing. This case study discuss about interventions to manage odontogenic pain in a patient with TEN.

Key words: Epidermal necrolysis, pulpitis, tooth extraction

INTRODUCTION

Toxic epidermal necrolysis is very rare dermatological disease. Immediate withdrawal of culprit drug and institution of appropriate treatment plays a vital role to save the patient [1]. SCORTEN, was developed by Bastuji Garin and may be used to estimate prognosis. Pulpitis related dental pain is uncommon in these cases. However, any such patient develops pain and no other ways to manage conservatively, to alleviate pain, extraction has to be performed. The use of systemic corticosteroids in the treatment of toxic epidermal necrolysis has always been controversial [2]. Healing of extracted socket and mucosa is compromised due to various factors of toxic epidermal necrolysis. These cases are seldom reported. In this case study, extraction of a tooth with chronic pulpitis in a 47-Year old, female patient with toxic epidermal necrolysis has been discussed.

CASE REPORT

A 47-Year old-female patient referred to department of dentistry from dermatology department with a complaint of tooth ache. On examination, she had multiple hyper pigmented areas all over the body. Eyes with photophobia, lacrimation and shedding of eyelashes. Intraoral examination, she had loss of

lingual papillae and erythema leads to smooth shiny tongue (Figure 1a). She had reduced salivary secretion and sicca syndrome. She had loss of taste sensation, which was diagnosed as toxic epidermal necrolysis.



Figure 1a: Smooth shiny tongue

She had given the history of taking Ayurvedic medicines for leg pain one month back for one week duration. After that she was apparently normal for one week then she developed watering and redness of both eyes and painful erosions. She had pain while swallowing food. Meanwhile she noticed red raised lesions scattered all over the body which leaves behind hyper pigmentation (Figure 1b & 1c). She had given the history of painful erosions over anal and vaginal mucosa and dysuria. After completed supportive medication and dexamethasone 20 mg twice daily and tapered to 10 mg twice daily for two weeks. She had no history of diabetics and hypertension.

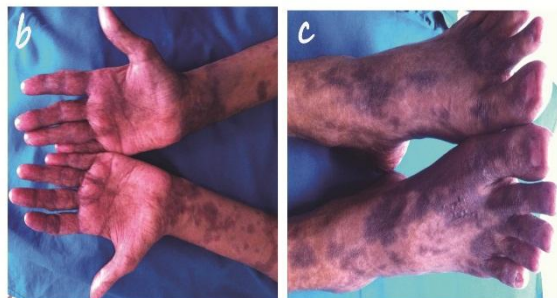


Figure 1b and 1c: Hyperpigmentation on hands and Feet

She had pain in upper right first premolar tooth. It was decayed beyond restoration and was painful on percussion. So the only option available was to extract the tooth. During late phase of the disease all the cutaneous lesions were subsided with hyperpigmentation and mucosal lesions were subsiding. Pre operatively Methylprednisone 100mg (IV) was given and atraumatic tooth extraction was done under local anaesthesia. Pressure pack was given to control bleeding. (tramadol 100 mg po) was given for two days. No antibiotic was given to the patient. No post-operative bleeding was present. She was recalled after one week. When she reported after one week she had slight pain over the extracted socket due to delayed healing. She was asked to gargle warm saline for two more weeks and the socket was healed completely.

DISCUSSION

Toxic epidermal necrolysis (TEN) is acute life threatening mucocutaneous reactions due to various drugs. In 1956, Lyell described epidermal loss with necrosis and termed toxic epidermal necrolysis. Oxycam NSAIDs, Carbamazepine are some medications with high risk group and Acetic acid NSAIDs (e.g. diclofenac), Aminopenicillins and Cephalosporins are lower risk group of drugs that cause epidermal necrolysis [1,4,5,7].

Pathogenesis is believed to be widespread apoptosis of keratinocytes provoked by the activation of a cell mediated cytotoxic reaction. Nonspecific symptoms such as fever headache and myalgia and followed by pain on swallowing and burning of eyes. Acute phase include fever, stinging eyes and discomfort upon swallowing. Involvement (erosions and erythema) of buccal genital and /or ocular mucosa. Second phase, large areas of epidermal detachment develop exerting tangential mechanical pressure on several erythematous zones (Nikolsky sign). Late phase TEN. According to the study of Magina et al [2] following

symptoms are found: hyper- and hypopigmentation of the skin (62.5%), nail dystrophies (37.5%), and ocular complications. SCORTEN has proven to be remarkably accurate in predicting mortality [6]. Impaired alimentation, photophobia and painful micturition and malabsorption cause impaired wound healing. The oral cavity and vermilion border of the lips features of painful hemorrhagic erosions coated by greyish white pseudomembrane and crusts of the lips.

Systemic complications include dyspnea [3], bronchial hypertension and hypoxemia. Gastrointestinal tract involvement with epithelial necrosis of oesophagus, small bowel and colon manifesting as malabsorption. Renal involvement with proteinuria, microalbuminuria, and hematuria. Protocol for medication is early recognition and withdrawal of the offending drugs and supportive care. Dental pain due to pulpitis is common phenomenon. Pain can be reduced either by doing root canal therapy or extraction. If the tooth is decayed beyond restoration, the tooth has to be extracted. Pain can also reduced by giving appropriate antibiotics and analgesics. In these cases, administering certain antibiotics and analgesics may aggravate the disease [8,9] However, nutritional supplementation with high protein diet and trace elements can be recommended. Any trauma to buccal mucosa or exerting tangential mechanical pressure will lead to epithelial detachment from the healing mucosa.

CONCLUSION

Toxic epidermal necrolysis is an acute life threatening mucocutaneous reactions due to various drugs. SCORTEN, was developed by Bastuji Garin and may be used to estimate prognosis. Dental pain can be reduced either by doing root canal therapy or extraction. Extractions can be performed safely in these patients provided ultimate care should be taken not to traumatise either mucosa or socket. After completion of supportive medication and dexamethasone 20 mg twice daily and tapered to 10 mg twice daily. Pre-operatively methylprednisone 100 mg (i.v) can be given and atraumatic tooth extraction performs under local anaesthesia.

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