ABSTRACT

Urticaria is a dermatological disease caused by various aetiologies namely infection, stress and allergy. Chronic urticaria can persist for long duration despite having proper medications. The most common reason for persistent urticaria can be attributed to undetected focus of infection in the body like untreated dental infection. This case report highlights the association of dental infection and persistent urticaria, in which the urticaria lesions persisting since three years got completely cured following the treatment of dental infection in a nine-year-old boy.

INTRODUCTION

Urticaria is a dermatological disease characterized by transient skin or mucosal swellings due to plasma leakage. According to its duration, it can be acute and chronic. The role of infection as a potential trigger for urticaria is well described but the exact mechanism is unknown. Chronic dental infections have been found to be associated with urticaria. However, current chronic urticaria guidelines do not recommend routine screening for underlying infection. This case report highlights the association between dental infection and urticaria in which a nine-year-old boy with urticaria since three years duration got completely cured following the treatment/resolution of dental infection.

CASE REPORT

A nine-year-old male patient was referred by dermatologist to the department of Pediatric and Preventive Dentistry to rule out the dental aetiology for the non-resolving urticaria. The lesion was persistent despite being under intensive medication for the last three years. Extraoral examination revealed presence of hives on the back of the trunk and left side of the face (Figure 1). The patient gave the history of migratory nature of the lesion.

Figure 1: Hives on left cheek and back of trunk

Figure 2: Pre-operative intraoral photographs
Intraoral examination revealed dentoalveolar abscess in relation to (i.r.t) 55, dentinal caries i.r.t 16 54 65 75 74 85, extensive caries i.r.t 84 and poor oral hygiene (Figure 2). Orthopantomogram was advised which revealed periapical abscess i.r.t 55, caries i.r.t 16 54 65 75 74 84 and 85 (Figure 3). On the basis of clinical and radiographic evaluation, final diagnosis of chronic generalized gingivitis, chronic periapical abscess i.r.t 55, deep dentinal caries i.r.t 16 75 74, asymptomatic irreversible pulpitis i.r.t 54 65 84, and enamel caries i.r.t 85 was made.

DISCUSSION

Urticaria is a common skin disease which usually manifests as raised erythematous lesions of different size and shape. Dental infection might be attributed as a common cause of chronic persistent/non-resolving urticaria. Alopecia areata, psoriasis, acne, erythema nodosum, urticaria, palmoplantar pustulosis, Schamberg disease and facial edema with or without urticaria are the common skin lesions which have been linked to dental infection. The release of histamine by the human body in response to any dental infection are found to be responsible for the occurrence of skin reactions and lesions like urticaria.

Studies have shown the association of chronic urticaria with oropharyngeal infections like dental infections, sinusitis and tonsillitis. A report of Tanphaichitr et al. showed complete resolution of chronic urticaria of five years duration following the treatment of dental infections and periodontal disease, which also highlights the dental infection as trigger mechanism of urticaria. Similarly Liutu et al. evaluated 107 patients who were suffering from chronic urticaria. Among the patients, eight patients had dental infection and four of them showed resolution of urticaria following dental treatment. Lipopolysaccharide present on the cell walls of Veillonella Parvula is the pathogenetic factor in dental infections which were also found to release histamine causing persistent chronic urticaria. Likewise, different literatures have revealed the association between dental infection and chronic urticaria. In the present case, the patient was prescribed different medications like anti-histaminic, anti-parasitic and corticosteroids for three years but there was no resolution of the lesion. This case report also highlights the association between the dental infection and persisting urticaria as the lesions subsided once dental treatment was completed.

CONCLUSION

Dental infections might be one of the overlooked causes of chronic urticaria. In case of non-resolving persistent chronic urticaria, screening and ruling out of dental infection is recommended which will ultimately facilitate in the timely management of the lesions.

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