Doughnut Lesions Over Palate in Streptococcal Pharyngitis

Abheek Sil¹ · Sayantani Chakraborty¹ · Dibyendu B. Bhanja¹ · Satarupa Mondal¹ · Avik Panigrahi¹

Received: 29 November 2019 / Accepted: 5 February 2020 / Published online: 22 February 2020
© Dr. K C Chaudhuri Foundation 2020

A 7-y-old boy, otherwise healthy, presented with a 2-d history of fever and sore throat. There was no associated headache, cough, myalgia, joint pain, skin rash or any bleeding manifestation. On examination, he was febrile (temperature 101.2 °F) with bilateral tender and enlarged cervical lymph nodes. Inspection of the oropharynx revealed an inflamed uvula, flushing of the anterior tonsillar pillar, enlarged tonsils (grade 1) and grouped petechial hemorrhagic spots with central pallor over the soft palate (Fig. 1). A positive rapid antigen detection test and throat culture confirmed group A beta-hemolytic streptococcus pharyngitis. The child received a 10-d course of oral amoxicillin; he recovered without any sequelae.

Doughnut lesions are erythematous papules having a pale centre distributed over the soft and hard palate. Classically, the presence of such lesions have been described with group A streptococcus (GAS) pharyngitis [1]; although it does not feature as a component of the McIsaac modification of the Centor Criteria (+1 score each for fever, absence of cough, tender anterior cervical lymphadenopathy, tonsillar swelling or exudates, age less than 15 and –1 for age more than 45) for diagnosis of GAS pharyngitis [2]. However, palatal hemorrhages may also accompany infectious mononucleosis, rubella (Forschheimer spots), roseola, viral hemorrhagic fevers, thrombocytopenia, and palatal trauma.

Doughnut lesions over palate thereby serve as an important sign in the clinical diagnosis of group A beta-hemolytic streptococcal pharyngitis in children and warrants empirical antibiotic therapy to limit complications especially, acute rheumatic fever.

Fig. 1 Oropharynx showing grade 1 tonsillitis with doughnut lesions over soft palate; close-up view of doughnut lesions displaying erythematous papules with pale centre (inset)

Informed consent and releases from the parent(s)/guardian(s) and/or the patient was taken.

Compliance with Ethical Standards

Conflict of Interest None.

References

1. Armstrong C. AHA guidelines on prevention of rheumatic fever and diagnosis and treatment of acute streptococcal pharyngitis. *Am Fam Physician*. 2010;81:346–59.
2. McIsaac WJ, Kellner JD, Aufricht P, Vanjaka A, Low DE. Empirical validation of guidelines for the management of pharyngitis in children and adults. *JAMA*. 2004;291:1587–90.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

✉ Abheek Sil
abheek.sil@gmail.com

¹ Department of Dermatology, Venereology, and Leprosy, R.G. Kar Medical College, Kolkata, West Bengal 700004, India