

Electrocautery treatment for the black hairy tongue

Siyah tüysü dilde elektrokoter uygulaması

Alper Yazici¹, Ismail Aytac¹

¹Dept. of Otorhinolaryngology, Medical Faculty of Gaziantep University, Gaziantep, Turkey

Abstract

Black hairy tongue is the hairy appearance of the dorsal part of the tongue. This clinical condition results from the hypertrophy of filiform papillae and the desquamation of the tongue. It is commonly seen in old individuals and heavy smokers. Initial treatment is generally based on the behavioural changes like cessation of smoking and maintenance of oral hygiene. If the prior therapies did not succeed, oral or topical therapies are commonly the second options. Chemical or electrocautery therapies that we can call “abrasion therapies” could be the last choice in the contemporary treatment of black hairy tongue.

Key words: electrocautery, black hairy tongue

Özet

Siyah tüysü dil, dilin dorsal kısmında saça benzer tüysü bir görünüm oluşmasıdır. Bu klinik durum, filiform papillaların hipertrofisi ve dilde skuamoz epitel kaybı ile oluşur. Özellikle, yaşlı, diş kaybı olan ve/veya aşırı derecede sigara içen erkek hastalarda gözlenir. İlk tedavi seçenekleri sigaranın bırakılması ve ağız hijyeninin sağlanmasıdır. İlk tedavi yöntemleri ile istenilen başarı sağlanamaz ise oral veya topikal tedaviler ikincil tedavi yöntemi olarak denenebilir. Abrasyon tedavisi olarak adlandırabileceğimiz kimyasal veya elektrokoter yöntemleri, güncel siyah tüysü dil tedavisinde en son tedavi basamağı olarak yer almaktadır.

Anahtar kelimeler: elektrokoter, siyah tüysü dil

Introduction

Lingua Villosa Nigra is also known as the black hairy tongue (BHT). It is the hairy appearance of the dorsal part of the tongue. Hairy tongue results from the defective desquamation of tongue and hypertrophy of filiform papillae.¹ The prevalence of BHT is not exactly known, somehow it could reach 11.3% in some populations.²

BHT is generally seen in the old, heavy smoker, male patients. It can also be seen in patients with malignancy, immunocompromised, edentulous or HIV positive features. It is easy to define BHT and the treatment options are numerous. Follow up with behavioural changes such as quitting smoking and brushing tongue, medical drugs including antifungals and antibiotics, topical trichloroacetic acid and urea solution, electrodissection cautery are different management modalities for BHT.³

Corresponding author: Alper Yazici, Dept of Otorhinolaryngology, Department of Medical Faculty, Gaziantep University, Türkiye

Phone: +90 506 316 51 24, E-mail: alperyazici1@gmail.com

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Case report

A 36-year-old male was presented with a complaint of abnormal gag reflex during his meal. He had a history of smoking of two packs of cigarettes for 20 years. He was not edentulous. He had a sensation of a foreign body at the back of the tongue. He did not have the history of previous oral surgical procedures. Additionally there was not any record of any systemic diseases or drug intake.

He was noted to have a black hairy appearance at the posterior location of sulcus terminalis (Fig. 1). After discussing the treatment options; he refused to take medication advice or applying any topical treatments (trichloroacetic acid, etc.). After eliminating other options, electrocautery dissection of BHT was accepted by the patient. The procedure was started with the appli-



Fig. 1. The appearance of black hairy tongue

cation of local anesthetic xylocaine ® pump spray over the tongue. The intervention was made with an electrocautery device (SURGITRON ® FFPF EMC ELLMAN INTERNATIONAL). We used the shaving handle device for 6 minutes under the local anesthesia. The hairy particles were cauterized with a handpiece device. Macroscopic appearance of the lesion was totally cauterized. One week after the operation symptoms were resolved. The patient declared that he had quit the smoking.



Fig. 2. The appearance of the same patients three months after the electrocautery application

Three months after the procedure, there was not any sign of lesion (Fig. 2).

Discussion

Lingua Villosa Nigra is the black hairy appearance of the tongue. It is caused by hypertrophy of the filiform papilla with existing desquamation of lingual mucosa.⁴ Poor oral hygiene, many different conditions, substances, medications are thought to be some etiologic factors of BHT.⁵ The detection of medication which triggers this condition is also essential.⁶ Antibiotics, antidepressants are thought to be the medical agents which could be responsible for BHT.^{1,7}

Due to the benign, self-limiting clinical characteristic features of BHT, the first-line treatment options are based on behavioural changes, such as quitting smoking, stopping medications associated with BHT, gently brushing tongue, etc. Many types of medical therapy for BHT is reported in the literature such as the usage of salicylic acid, gentian violet, thymol, vitamin B complex, topical or oral retinoids.⁸

Electrocautery device is a radiofrequency electricity source for generating heat in the tissues.⁹ Generally, needles and fine wire tips of electrocautery device are used at otor-

hinolaryngology interventions for the oral mucosa.¹⁰ These types of tips affect the cross-sectional area by concentrating the current at a fine point.⁹ A localized generated heat in a cross-sectional area by using fine point makes the electrocautery device a useful device for the oral mucosal diseases. The usage of electrocautery in BHT is anecdotal. Electrocautery is recommended in BHT which is resistant to the prior therapies.^{11,12}

A limitation for this report is that we did not evaluate this patient for oral candidiasis which could be a possible etiologic factor.

To conclude, according to our clinical experience electrocautery might seem to be a choice for the treatment of BHT in a patient who refuses the other options. However, the maintenance of oral hygiene and the cessation of smoking are essential before considering electrocautery option.

of oral mucosal lesions in 598 referred Iranian patients. *Open Dent J* 2009;3:42-7.

References

1. Schlager E, St. Claire C, Ashack K, et al. Black hairy tongue: Predisposing factors, diagnosis, and treatment. *Am J Clin Dermatol* 2017;18:563-9.
2. Avcu N, Kanli A. The prevalence of tongue lesions in 5150 Turkish dental outpatients. *Oral Dis* 2003;9:188-95.
3. Gurvits GE, Tan A. Black hairy tongue syndrome. *World J Gastroenterol* 2014;20:10845-50.
4. Andrade SA, Ribeiro MM, Pratavieira S, et al. Hairy tongue: Differential diagnosis by use of widefield optical fluorescence. *Braz Dent J* 2019;30:191-6.
5. Thompson DF, Kessler TL. Drug-Induced black hairy tongue. *Pharmacotherapy* 2010;30:585-93.
6. Braggio C, Bocchialini G, Ventura L, et al. Linezolid-induced black hairy tongue. *Acta Biomed* 2018;89:408-10.
7. Hamad Y, Warren DK. Black hairy tongue. *N Engl J Med* 2018;379:e16.
8. McGregor JM, Hay RJ. Oral retinoids to treat black hairy tongue. *Clin Exp Dermatol* 1993;18:291.
9. Zinder DJ. Common myths about electrosurgery. *Otolaryngol Head Neck Surg* 2000;123:450-5.
10. Smith TL, Smith JM. Electrosurgery in otolaryngology-head and neck surgery: Principles, advances, and complications. *Laryngoscope* 2001;111:769-80.
11. McGrath EE, Bardsley P, Basran G. Black hairy tongue: What is your call? *CMAJ* 2008;178:7-8.
12. Jahanbani J, Sandvik L, Lyberg T, et al. Evaluation