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# Black hairy tongue in a patient with chronic Alcholism (lingua villosa nigra)

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# Abstract

Black Hairy Tongue (BHT) is a hereditary benign condition which is characterized by the appaerance of abnormally hypertrophied and elongated pilliform papilla on dorsal surface of tongue. Its exact pathogenesis is unknown; however, there is significant involvement of secondary papillary cells producing hairy-type keratin. Known predisposing factors include smoking, consumption of excessive coffee / black tea, bad oral hygiene, trigeminal neuralgia, poverty, xesrostomia, drugs and alcohol. Hairy tongue is especially seen in those who smoke intensively in high prevalance; however our case is associated with excessive alcohol consumption. As means of treatment, we made suggestions such as alcohol abstinence, mouthwash with antiseptic solution, frequent hygienic care, tooth brushing as his treatment.

Key words: hairy tongue, chronic alcoholism

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#### СОЗЫЛМАЛЫ МАСКҮНЕМДІГІ БАР НАУҚАСТАҒЫ ҚАРА ҚЫЛДЫ ТІЛ

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#### Тұжырымдама

Қара қылды тіл (ҚҚТ), ұзартылған және патологиялық ұлғайған жіптәрізді емзіріктердің тілдің сыртқы бетінде орналасуымен сипатталған пайда болған жағдай. Патогенезі әлі белгісіз, бірақ гистопатологиялық тұрғыдан ең маңыздысы болып құрамында кератиннің қылды түрінен тұратын екіншілік папилярлық жасушалардың дамуының кешіктірілуі болып табылады. Себепші факторларға жатады: темекі тарту, көп мөлшерде кофе мен қою қара шайдың қолданылуы, ауыз қуысының нашар гигиенасы, үштік нервтің невралгиясы, жалпы азу, ауыз қуысының құрғауы, дәрілік заттар мен ішімдіктің қолданылуы. Қара қылды тіл ең жиі темекіні көп мөлшерде тартқан адамдарда кездеседі, бірақ біздің клиникалық жағдайымыз ішімдікті жиі қолданумен байланысты. Емінде ұсынылған шаралар: ішімдікті тоқтату, ауыз қуысын антисептикалық ерітінділермен шаю, ауыз қуысын жиі тазалау, тістерін тазалау және тағы сол сияқты.

Маңызды сөздер: қылды тіл - созылмалы маскүнемдік.

## ЧЕРНЫЙ ВОЛОСАТЫЙ ЯЗЫК У ПАЦИЕНТА С ХРОНИЧЕСКИМ АЛКОГОЛИЗМОМ

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#### Резюме

Черный волосатый язык (ЧВЯ), это приобретенное, доброкачественное состояние характеризующееся появлением на дорсальной поверхности языка анормально гипертрофированных и удлиненных нитевидных сосочков. Патогенез до сих пор неизвестен, однако гистопатологически имеет важное значение значительная задержка развития вторичных папиллярных клеток, состоящих из волосистого типа кератина. Предрасполагающими факторами являются: курение, чрезмерное употребление кофе/крепкого черного чая, плохая гигиена ротовой полости, невралгия тройничного нерва, общее истощение, сухость ротовой полости, использование лекарственных средств и употребление алкоголя. Черный волосатый язык имеет наиболее высокую распространенность у злостных курильщиков, но наш клинический случай связан со злоупотреблением алкоголя. В лечении было рекомендовано, прекратить употребление алкоголя, полоскание полости рта антисептическими растворами, частая гигиена полости рта, чистка зубов и т.д.

Ключевые слова: волосистый язык - хронический алкоголизм.

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## Introduction

BHT, which is firstly defined by Amatus Lusinatus in 1557 and characterized by hyperkeratosis and piliformis papillary hypertrophy on the dorsal surface of tongue, is also called as lingua villosa nigra, nitrite linguae, fungal keratitis linguae, melanonichia lingua [1,2]. Its prevalance is ranged between 0.6% and 11.3% geographically. Its etiology and pathophysiology has not been clarified completely; yet accepted to be multifactorial. Male sex, advanced age, smoking, alcohol consumption, bad oral hygiene and some medications increase the risk of development of BHT. Inspection is mostly sufficient for diagnosis. Prognosis of the disease is sxcellent; it is self-limited to a great extend and barely requires intervention. Alcohol and use of intravenous drugs, general debilitation and history of radiotherapy to head and neck can be recognized as important risk factors to develop BHT [3,4,5,6]. The main cause of BHT development in the case presented here is excessive use of alcohol.

# Case presentation

Male patient, aged 53, presented to Near East University Emergency Department with complaints of excessive consumption of alcohol, multiple echimoses on the face and body, nutritional deficiency and difficulty, weakness, fatigue, agitation, asymetrical swelling on face and also bad breath. The patient had similar complaints for 10 years; he has had detoxification therapy in different centres for 3-4 times every year. In the last 20 days, he continiously consumed alcohol without having any meal. There is not any known systemic ilnesses, history of allergy or constant use of any medication. He does not smoke. He consumes alcohol for 10 years, being excessively in the last 3-4 years. In physical examination, he had 140/80 mmHg blood pressure, 184 beats/min pulse and no fever. His blood glucose level was 198mg/dl. He was conscious, co-operated, well oriented and his glasgow coma scale was 14. His oropharynx and tonsils were hyperemic and covered with brown-black plaques. He had bad oral hygiene, hypertrophic black (like coal) coloured elongated piliform papillae and hairlike formations (Lingua Villosa Nigra) on the dorsal surface of his tongue. His tongue was extremely dry. He was diagnosed as hairy tongue (Lingua Villosa Nigra) (Picture 1).





**Picture1 -** Black hayri tounge before and after treatments

His lab investigations showed anemia (Hgb: 9.2g/dl), mild trombocytopenia (plt:139x10^3), icreased AST dominancy (AST:167, ALT:8) in liver function tests, hypopotasemia (K:3.01) and hypocalcemia. His INR was in normal range. Hepatosteatosis and hepatomegaly were observed on abdominal USG. The patient was hydrated; started on parenteral vitamine supply, sedation and hepatoprotector, proton pump inhibitor and also his oral care was carried out by applying antiseptic solution to his mouth, teeth and gum. Alcohol abstinence therapy was advised (Picture 2).



Picture2 - The tounge after treatments

## **Discussion**

Hairy tongue (HT) is defined as a common, classical disease which is originated from relatively hypertrophic and elongated piliformis papillae having black and hairy appearance on the dorsal surface of tongue [1,2]. In spite of its striking appearance, it is benign and asymptomatic, mainly giving rise to estetical disturbance. Oral plugs can be observed. Lesions usually start next to foramen ceacum and spreads towards the front. Clinically, it is characterized by structures resembling to long hair on the dorsum of tongue, generally the midline. Since its appearance is typical, biopsy is not required for diagnosis [1]. The colour of the hairy regions on the tongue could be yellow, brown, black or blue-like. This variety of color is thought to be the result of microflora [7]. It is certain that its etiology and pathophysiology is multifactorial and it is gradually understood much better. Male sex, advanced age, smoking, alcohol use, excessive consumption of black tea or coffee, HIV, general detoriation of health and malignancy can give rise to the development of HT and such patients carry a higher risk. Although microscopic examination, biopsies and cultures of tongue buds are helpful in diagnosis, the diagnosis is mainly put by inspectional oral examination (in detail) and medical history. Culturing can be administered in order to differentiate superimposed bacterial or fungal infections [10]. Biopsy of tongue cen be supportive; however the lesion is typical for BHT and response to mechanical debridement is not necessary. Known risk factors and detailed investigation of changes in medication are fundemental in diagnosis. HT is typically selflimited disease that responds well to local treatments [3,4,5,6]. Patients with HT should not consume excessive alcohol, smoke or use drugs whose doses cannot be specified. Oral care must be taken fastidiously. Topical or oral retinoids, salicylic acids, vitamin B complex and 40% urea solutions are used for the treatment of HT [1,8]. Brushing the tongue in order to clean away the accumulated keratin is also effective in treatment [1,9]. Prognosis is excellent following the treatment.

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