

The Black Hairy Tongue: CANDIDA OR NOT?

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Case Report

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Abstract: The Black Hairy Tongue (BHT) is characterized by a hypertrophy of lingual papillae in the posterior part of the back of the tongue which often take a brown to black coloration; its etiology is unknown but probably multifactorial: alcohol-smoking, poor hygiene prolonged use of antiseptics or oral antibiotics, digestive and metabolic disorders, etc. We report two observations of BHT where the diagnosis of candida was retained following the detection on several samples of the same species and the good clinical evolution under suitable antifungals. Patient aged 53 years, having as antecedent pathological a taking of cortico therapy for an eczema problem in the feet, the port of dentures with bad oral hygiene that presents itself for a brownish color in the tongue with no functional discomfort, no feeling of impasto or itching. The patient was put under Flagyl, canaflucan and protected amoxicillin without clinical improvement. Microbiological examination was performed, direct examination after culture showed the presence of yeasts. The culture on Sabouraud medium made it possible to isolate a candida. The identification using the gallery 20 C AUX objectified candida glabrata. The patient is put under Nystatin with a good clinical and biological evolution. Patient 67 years old, diabetic, chronic smoking, checked up for heart failure under stent, with dentures and excessive hygiene of the oral cavity. The one who underwent a dermatological consultation for brownish coloring of the tongue, the diagnosis of BHT is retained. The mycological study confirmed the diagnosis of candida lusitanae. The patient was put on nystatin tablet with good clinical progress. The purpose of our work was not to highlight a causal link between candida and the occurrence of this pathology but its incrimination in the process or maintenance of this lesion.

Keywords: Villous black tongue, candida glabrata, candida Lusitania, antifungals.

INTRODUCTION

The Black Hairy Tongue (BHT) is characterized by an elongation and hypertrophy of the lingual papillae in the posterior part of the back of the tongue which often takes a brown to black coloration, its etiology is unknown but probably multifactorial: alcohol-smoking, poor dental hygiene, prolonged use of antiseptics or oral antibiotics, digestive and metabolic disorders, etc. It shares the same risk factors as candidal infections.

We report two observations about two patients who were presented with BHT where candida was isolated several times and with a good clinical and biological evolution under suitable antifungals.

OBSERVATION 1

It is about Mr. MN aged 53 years having as antecedent pathological a taking of cortico-therapy for a problem of eczema at the level of the feet, the port of a denture with bad oral hygiene, besides the

mentioned individual has no diabetes, no smoking or alcohol, goes to the dermatology department for a brownish color in the tongue without any discomfort, including no feeling of impasto or itching, the rest of the examination Clinical is without particularity including no cervical lymphadenopathy.

The patient was initially exposed to Flagyl, Canaflucan and protected Amoxicillin without clinical improvement, after which he was referred to the microbiology department for assessment (Fig.1). A sterile vial swab was performed, direct examination after culture showed the presence of blastoconidia. Culture on Sabouraud medium highlighted small colonies of cream color, and allowed to isolate 10^6 CFU.(Fig.2) The diagnosis of species was retained on the ability of *C. glabrata* to hydrolyze trehalose and not maltose on API20C AUX. The patient was put on nystatin tablet to suck daily with good clinical and biological evolution



Fig-1: Patient n°1 with BHT



Fig-2: Culture on Sabouraud medium: small colonies of cream color

OBSERVATION 2

This is Mr. LD aged 67, diabetic, chronic smoking, checked up for heart failure under stent, with dentures and excessive hygiene of the oral cavity. The one who underwent a dermatological consultation for brownish coloring of the tongue, the diagnosis of BHT is retained (Fig 3).

Microbiological examination with sterile swab was performed in the laboratory. Phenotypic identification of the specimen by direct examination in

physiological saline between blade and lamella made it possible to note the presence of yeasts and filaments.

The swab was seeded on Sabouraud medium. Incubation was made at 27 °C for 24 to 48 hours, culture was positive with homogeneous colonies of white color, at 10^5 CFU.(Fig 4). The diagnosis of species was retained by carrying out an auxanogram on gallery API20C AUX: *Candida lusitana*.

The patient was put on nystatin with good clinical progress. (Fig.5)



Fig-3: patient n°2 with BHT, before treatment



Fig-4: Direct examination showing yeasts (Gx40)



Fig-5: patient n°2 after treatment

DISCUSSION

The black Hairy tongue (BHT) is characterized by elongation and black or brownish discoloration of the filiform papillae, it may extend to the entire back of the tongue, or localized to the posterior medial region [1]. This pathology has a prevalence of 4% according to a French monocentric descriptive transverse epidemiological study concerning diseases of the oral mucosa [2].

According to the literature, It is not a mycosis, but a particular state of the tongue, characterized by a considerable multiplication of saprophytic bacteria and fungi [3], however it shares the same risk factors as the candidal infections: antibiotic use, antimetabolic, psychotropic, chronic irritation, excessive use of antiseptics, dry syndrome, smoking and poor oral hygiene.

If its diagnosis according to the literature is clinical, does not require further examination, and the search for Candida is most often negative and the isolation of yeast is not significant [4] our work suggests the opposite since we could isolate and significantly the candida involved on several sample.

Certainly, the application of conventional antifungals for the treatment of BHT has no effect probably due to the recrudescence of genus Candida non albicans and the emergence of resistance [5]. We opted for a treatment with Nystatin which is a natural antifungal, close to amphotericin B, produced by *Streptomyces noursei*, which is active in vitro on a wide

variety of yeast and filamentous fungi, its activity is mainly local (contact) [6].

In all cases, appropriate local care must be implemented: oral hygiene, alkalization of the oral environment, chlorhexidine-based mouthwash (removal of removable prostheses for a few days, careful disinfection of the dentures, eviction of acidic foods, sugars between meals.

CONCLUSION

The aim of our work was not to highlight a causal link between candida and the occurrence of this pathology, but its incrimination in the process or maintenance of this lesion.

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