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HALITOSIS: THE SILENT STRUGGLE FOR CONNECTION

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ABSTRACT:
Halitosis, also known as oral malodor, bad breath, fetor ex-ore, or fetor-oris, refers to an unpleasant odor consistently emitted from the oral cavity. This unpleasant odor is caused by odorous compounds, which may be extrinsic or intrinsic in nature. Halitosis, being a common social hindrance, can lead to psychological difficulties. Patients with this condition often seek help from various specialists for diagnosis and treatment. Accurate diagnosis and an understanding of the underlying cause are essential for effective treatment. A multidisciplinary approach involving practitioners from multiple fields is necessary to prevent misdiagnosis and inappropriate treatment. Due to varying reports on the etiology and therapeutic techniques for halitosis in the literature, further investigation and analysis are required. This paper aims to evaluate the causative factors, diagnostic methods, and treatment options needed to maintain oral health while restoring an individual's mental health, self-confidence, and social status. The social and psychological impacts of halitosis are considered while studying these parameters.

KEYWORDS: Halitosis, oral malodor, bad breath, psychological effects.

INTRODUCTION:

Halitosis can interfere with social interactions and lead to psychological issues, often resulting in personal and social isolation[1]. It affects individuals at different points in their lives and may be caused by various factors. Due to challenges in objective evaluation, the true prevalence of halitosis remains uncertain. Miyazaki et al. reported that approximately 6-23% of the population suffers from malodor beyond socially acceptable limits[2]. Some individuals with halitosis have actual malodor, while others may not, but psychological factors may contribute to their perception of the condition[4]. Halitosis can significantly affect social life, as individuals with the condition may be unaware of their malodor due to olfactory disturbances, which leads to others noticing the issue before they do[7]. This results in distress and avoidance of social interactions[7].

Halitosis is primarily caused by microbial metabolism of amino acids in local debris. Volatile sulfur compounds (VSCs), including hydrogen sulfide (H_2S), methyl mercaptan (CH_3SH), and dimethyl sulfide (CH_3SCH_3), are significant contributors to oral malodor[5]. Diagnostic measures like VSC level assessments and organoleptic testing (OLT) are commonly employed to evaluate oral malodor[5]. Younger individuals show a higher incidence of halitosis due to factors like peer pressure and body changes during puberty[11]. Halitosis is associated with

psychological traits such as depression, anxiety, paranoid ideation, and aggression, which can exacerbate poor oral hygiene[11]. While halitosis affects people of all ages, its severity increases with age due to conditions like xerostomia[5].

ETIOLOGY:

Pathological halitosis has intraoral and extraoral causes, with 80-85% of cases being intraoral in nature[1]. The primary mechanism involves the breakdown of organic compounds (e.g., saliva, food debris, desquamated epithelial cells) by anaerobic bacteria, leading to the production of VSCs[1,7]. Key bacteria responsible for foul odor include *Porphyromonas gingivalis*, *Fusobacterium nucleatum*, and *Prevotella intermedia*, which produce odor-causing compounds like methyl mercaptan, hydrogen sulfide, and dimethyl sulfide[2]. Other contributing factors include poor oral hygiene, periodontal disease, open caries lesions, and xerostomia caused by conditions like diabetes, Sjogren's syndrome, and long-term stress[1]. In clinical settings, halitosis is classified as genuine halitosis, pseudo-halitosis, and halitophobia[5].

SUBJECTIVE HALITOSIS:

Subjective halitosis has been redefined into two types: neurogenic and psychogenic. Neurogenic halitosis involves actual stimulation of olfactory cells without the release of odorants from the mouth, while psychogenic halitosis lacks chemical stimulation at the receptor level[11]. Psychogenic forms include halitophobia, olfactory obsession, and delusional halitosis, with varying degrees of severity and symptoms[11].

MALODOR ASSESSMENT:

The assessment of halitosis involves organoleptic testing, gas chromatography (GC), and sulfide monitoring. Organoleptic testing is a sensory evaluation method, while GC, considered the gold standard, detects VSCs with a flame photometric detector[5]. Other methods include the BANA test, chemical sensors, and salivary incubation tests[5].

MANAGEMENT:

Proper diagnosis is essential for treating halitosis effectively. Treatment strategies include mechanical and chemical reduction of bacteria, odor masking, and chemical neutralization of VSCs. Regular tongue brushing, use of zinc-containing toothpaste, antibacterial mouthwashes with triclosan or chlorhexidine, and probiotics like *Streptococcus salivarius* strain K12 have proven beneficial[5,6]. It is crucial to provide emotional support and reassurance to patients, as psychological factors often contribute to their distress[11]. Multidisciplinary care involving psychologists, psychiatrists, dentists, and other healthcare professionals is necessary for patients with delusional halitosis[11].

CONCLUSION

Halitosis poses significant challenges to social relationships and can severely affect an individual's psychological well-being. Early diagnosis and identification of the causative factors are key to effective treatment, which should focus on removing etiological causes and maintaining proper oral hygiene. A multidisciplinary approach involving medical specialists is essential to treat the complex nature of halitosis and its psychosocial impacts. [11]

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