

## **THE MICROBIOLOGICAL COMPOSITION OF DENTURE PLAQUE AND ITS IMPACT ON ORAL MUCOUS MEMBRANE IN PATIENTS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE ON LONG-TERM OXYGEN THERAPY AND INHALED CORTICOSTEROIDS**

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Denture plaque in COPD patients who are wearing prosthodontic dentures is an example of bacterial and fungal biofilm, which might cause stomatitis and oral candidiasis. That could be explained by the chronic use of inhaled corticosteroids and long-term oxygen therapy (LTOT), which can dry the mucous membrane of the upper respiratory tract. The aim of this study was to establish the impact and composition of pathogens in denture plaque on oral mucosa membrane in COPD patients with or without long-term oxygen therapy. The study was based on the clinical assessment of oral mucosa and denture hygiene in 20 stable COPD on LTOT, 27 stable COPD patients without LTOT and 20 healthy subjects. Microbiological and mycological tests were performed by culturing direct denture swabs. The study revealed the presence of yeast-like fungi in denture surface swabs of 60% COPD participants with LTOT, also nearly 60% COPD patients without LTOT and 35% in healthy subjects. Other potentially pathogenic strains of the respiratory system were also found on denture plaque of COPD patients, such as: *Enterobacteriaceae spp*, *K. pneumoniae* and *K. oxytoca*, *S. aureus*, *Serratia spp*. The results showed a greater but quit similar frequency of prosthetic stomatitis complicated by mucosal infections among both groups of COPD patients compared to healthy. The elimination of denture plaque ought to constitute the basic manner of reducing oral inflammations in COPD groups.