

Analytical Indicators of the Results of Bacteriological Examination of the Oral Cavity in Patients with Mental Illnesses

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Abstract Diseases of the oral cavity organs in patients with mental illnesses are very common, while there is practically no sensation or sensation of pain caused by various pathological processes in the teeth and organs of the oral cavity, the main cause of which is their failure to comply with oral hygiene, as well as excessive use of psychotropic drugs [1,3,5]. Consequently, they may have large and complete dental defects. Failure to maintain oral hygiene in patients with mental illnesses can lead to complete coverage of the tooth surface with tartar and plaque, as well as the proliferation of numerous gram-positive bacteria in the oral fluid, which can also cause various pathological processes in the gastrointestinal system [2,4,6]. Laboratory identification of pathological bacteria causing oral diseases in mentally ill patients and the use of appropriate therapeutic measures are currently one of the pressing problems [7,8,9,10]. The autofluorescent stomatoscopy due to the fact that this research method has the advantage of more accurate determination.

Keywords Laboratory research, Gram-positive bacteria, Mental patients, St.Aureus, E.coli, Kl.pneum, Streptococcus

1. Introduction

Currently, dental diseases are very common in patients with mental illnesses, and this condition is due to the fact that due to their mental illness, they do not maintain oral hygiene, as a result of which we can observe the occurrence of various pathological processes in the teeth, the surrounding periodontal tissues and the mucous membranes of the oral cavity. Conducting in-depth dental examinations of patients with mental illness in a dental office located in a mental health facility and providing them with qualified dental treatment creates a number of problems. Because the main treatment in the mental health dispensary is to treat the patients' psycho-emotional pathological processes. Therefore, no deep attention is paid to the prevention and treatment of dental diseases in them. In our study, we set ourselves the goal of identifying pathological bacteria that cause diseases in the oral cavity of patients with mental illness, using the necessary drugs against them, and implementing measures to prevent complications of the disease.

Purpose of the Study. To determine the results of laboratory tests of pathological microflora in the oral fluid of patients with mental illness and to apply therapeutic measures against them.

2. Material and Methods

Laboratory examination of oral fluid.

3. Results

The results of bacteriological examination of oral fluid were usually formed as follows:

1. Macroscopic assessment - obstetric fluid was checked for color, presence of particulate matter, odor, and the results were analyzed.

- Obstetric fluid color: transparent in 24%, cloudy in 36%, whitish in 40% of patients.
- Presence of solid inclusions in obstetric fluid: solid inclusions were not detected - 55%, solid inclusions were detected - 45% of examined patients.
- Odor of obstetric fluid: 43% of patients with neutral odor, 57% of patients with acidosis odor.

2. Results of microscopic analysis.

- Gram stain results:
Gram-positive bacteria: st. Aureus was 12.6%, E. coli 11.3%, class. pneumonia 24.1%, streptococcus 52.0%.
- Cell elements:
 - o Leukocytes: ≤ 10 / > 10 (high count indicates inflammation).
 - o Epithelial cells: low in 33%, moderate in 27%, high in 40%.

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3. Results of bacteriological culture

Table 1. The number of gram-positive bacteria in the oral fluid of patients with mental illness

Name of the bacterium	Quantity (KOE/ml)	Norm	Explanation
St. Aureus	10^6	$\leq 10^5$	Possibility of gingivitis
E.coli	10^5	$\leq 10^5$	Is there a possibility of damage to the mucous membrane
kl.pneum	10^6	$\leq 10^4$	Possibility of aphthous stomatitis
streptococcus	10^7	$\leq 10^7$	Probability of periodontitis

Note: Patients in the study group had a high percentage of gram-positive streptococcal bacteria.

In conclusion, it should be noted that bacteriological examination of oral fluid in patients with mental illnesses revealed Gram-positive bacteria. *St. Aureus* was detected in 12.6%, *E. coli* in 11.3%, *Cl.pneumoniae* in 24.1%, *streptococcus* in 52.0%. The frequency of occurrence of these types of pathogenic bacteria in the oral cavity, mucosal lesions, chronic aphthous stomatitis, hypertrophic and ulcerative necrotic gingivitis, and chronic diffuse periodontitis has been determined. Effective methods of treatment and prevention of diseases identified in dental patients with mental disorders have been developed and put into practice.

4. Conclusions

Smears taken from the oral fluid of patients with mental illness were sent for laboratory examination. Smears were cultured in the laboratory and according to the results of the analysis, such types of bacteria as *St. Aureus*, *E.coli*, *kl.pneum*, *streptococcus* were identified. Drugs against these pathological microflora were selected and treatment measures were applied in collaboration with a psychiatrist.

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