

## THE PHARMA INNOVATION - JOURNAL

### The state of parodont tissues of spirit production the workers have

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The article presents the results of clinical dental observation of 413 spirit production workers of Lviv region and it is analyzed in the state of tissues and diagnostic structure of parodont diseases.

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*Keyword:* A spirit production, Parodont disease, Environmental factors, Dental health.

#### 1. Introduction

One of the topical directions of scientific research in the direction of dentistry is the study of influence of harmful factors of environment on the dental health of workers. Scientific literature 80-85% of diseases is a consequence of the impact of occupational and environmental factors, and the emergence of the disease in production and the associated loss for the country account for 4-5% of the total gross national product [1, 2, 5]. Production of spirit, which refers to food processing industry is one of the main branches of national economy that brings significant income to the state budget through the import and export sales [2]. However, despite the comprehensive support of the state the morbidity of companies related to the production of spirit for the production factors, is presented as follows: the first place of the disease associated with exposure of physical factors - 42.6%; the second - due to influence of industrial aerosols and pollutants - 39.6%; diseases caused by chemical factors - 8.4%, biological factors - 4.5% and allergic diseases - 2.9% [1, 2, 5].

Negative factors of specified production environment lead to an imbalance of adaptive and protective and compensatory mechanisms, which

causes structural and functional changes in makroorganizms and particularly in the parodont [3, 4, 6].

The **purpose** of research was to study the state of parodont tissues at workers of spirit production.

#### 2. Materials and methods

413 persons aged 20-55 years, workers of spirit factories of Lviv region have been examined. The main group (316 people) was presented by examined, who had a direct contact with harmful factors of the production. A comparative group (97 persons) was represented by the administrative and support staff of these productions, the activity of which was due to the difference in the working conditions (absence of harmful pollutants and aerosols in the air of the working zone, hygienic requirements of the parameters of the microclimate, noise, lack of physical and emotional stress). Evaluation of dental status was carried out using standard survey scheme, developed with the recommendations of the WHO. It was maintained special registration form for each employee of the factory, that contains personal data, dental formula, paraclinical indices, data on non-carious lesion of hard tissues of teeth, the condition of

parodont tissues, anomalies and deformations of tooth-jaw system, the mucous membranes of the oral cavity. Special attention was paid work experience in the company, presence of harmful habits and presence in the history of somatic diseases [3,4].

Statistical processing of the obtained data was performed by the method of variation statistics, less the average arithmetic mean (M), standard deviation (b), mean error (m) in each of the groups.

### 3. Results of the investigation and their discussion

The data in Table 1, in our opinion, have been showed the following trend: the main group intact parodont met 3.2 times less than data relatively to the comparative group (12.34±1.85% vs 39.18±4.96%, p≤0.001). At the same time, the significance(p≤0.001) in 1,4 times more frequently in workers employed directly in the production of spirit, revealed diseases of parodont tissues (87.65±1.85% vs 60.82±4.96% in comparison).

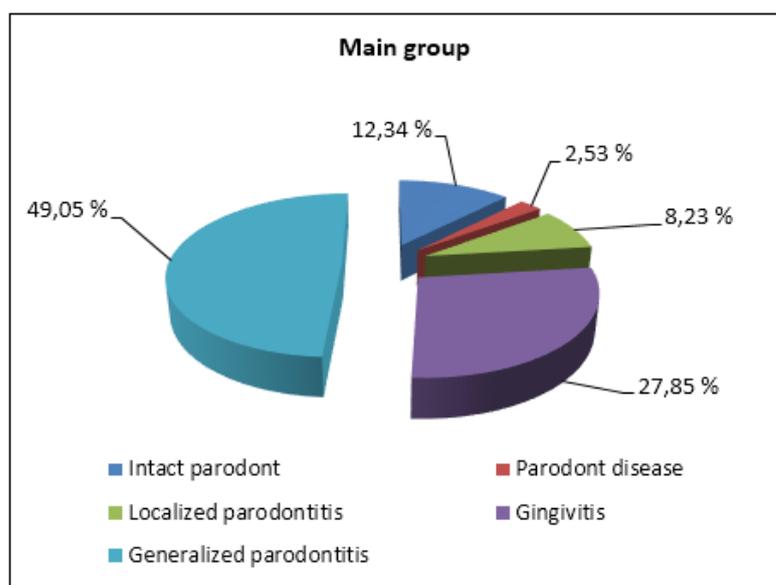
**Table 1:** Prevalence of parodont disease in workers of spirit production.

State of parodont	Main group (n=316)		Comparative group (n=97)	
	Absolute number	%	Absolute number	%
Intact parodont	39	12,34±1,85 p	38	39,18±4,96
Parodont disease	277	87,65±1,85 p	59	60,82±4,96

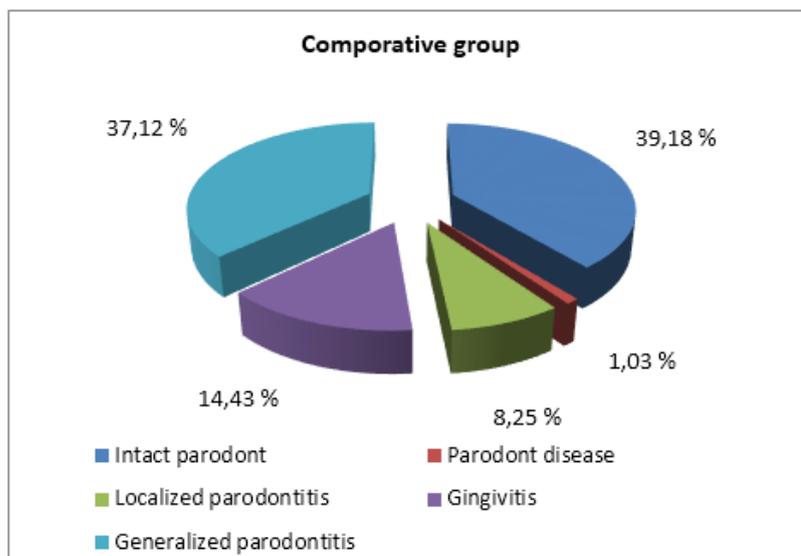
P≤0,001 - significant difference in relation to the comparative group data

Analysis of diagnostic structure of parodont diseases among workers in spirit production (Fig. 1, 2) showed that the main group gingivitis was found in 27.85±2.52% observed, which was 1.9 times more data on comparative group (14.43±3.57%, p≤0.001); advanced forms of the

generalized periodontitis have examined the comparative group reported in 37.12±4.91%, which, in turn, was 1.3 times compared to the data in relation to the main group (49.05±2.82%, p≤0.001).



**Fig. 1:** Diagnostic structure of parodont diseases in main research group



**Fig 2:** Diagnostic structure of parodont diseases in comparative research group

#### 4. Conclusions

It was found the workers of spirit factories have a higher prevalence and intensity of periodontal diseases compared with working personal in normal conditions. Diagnostic structure in contact with profpathogenes, prevailed developed form of destruction tooth-retaining apparatus, the progression of them was a lot faster concerning the status of persons not employed directly in production.

#### 5. References

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