



indicators of the state of professional safety in a particular industry in the region or in the country as a whole. Today's state of it trade unions assess as critical. Bioaerosols may consist of pathogenic or non-pathogenic live or dead bacteria and fungi, viruses, high molecular weight of allergens, bacterial endotoxins, mycotoxins, peptidoglycans,  $\beta$  (1 $\rightarrow$ 3)-glucans, pollen, plant fibers, etc. The pollution of air in saw-mills with microorganisms results from the primary or secondary infection of timber with bacteria and fungi, respectively. Secondary infection of wood proceeds on chopped wood chips and planks which are stored in sawmills in conditions favoring microbial growth. It is characterized by abundant growth of molds. Thus, sawmill workers may be exposed at work to the inhalation of various allergenic and immunotoxic agents, comprising wood derivatives and microorganisms associated with timber.

The purpose was to identify and investigate the effect of prolonged contact with wood dust in the air of the production environment of primary woodworking industry enterprises on the state of dental health of worker.

We examined 111 workers of the woodworking industry who work under condition of pollution of air with wood dust. All the examined workers were divided into the main group consisted of 78 people who for a long time were under the influence of pollution of air with wood dust and control groups (33 persons), who do not have long-term contacts with unfavorable production factors. To evaluate the dental status, we used the following indices: CFE, OHI-S by Green-Vermillion, API by Lange D.E., Plagmann H., PMA by Schour, Massler in Parma modification, CPITN.

It was found that during long work at production premises contaminated with wood dust, the state of workers dental health considerably worsens. In particular, we found a close connection between the constant contact with wood dust in the air of the production environment and the deterioration of the oral hygiene state according to OHI-S by Green-Vermillion (P-0,0099) and API by Lange D.E. (P - 0.0070). We found a tendency of worsening of the condition of teeth hard tissues according to CFE index (P <0.001) and growth of periodontal diseases treatment needs according to CPITN index (P-0.01) with increasing of work experience in both observation groups, however, these indices were significantly higher in the main group than in the control group. We also determined the close connection between long-term contact with wood dust and the occurrence of inflammatory changes in periodontal tissues among workers according to PMA index by Schour, Massler in the Parma modification (P-0.0238).

Dental health of the workers in the main group is much worse than in the control group. In particular, the average indicators of all indexes in the main group significantly exceed those in the control group. So, we can truly conclude that prolonged permanent contact of workers with wood dust has a negative impact on their dental health. We observed a tendency of CPITN index's growth with an increasing the work experience in both groups, however, in the main group indexes were significantly higher.

**Vitkovskiy O.O.**

## **ACUTE ODONTOGENIC DISEASES IN CHILDREN, CAUSES OF DEVELOPMENT**

*Department of Paediatric Stomatology  
Higher State Educational Establishment of Ukraine  
«Bukovinian State Medical University»*

The problem of increasing the number of children with acute odontogenic inflammatory diseases of the maxillofacial region does not lose its relevance. In many cases there is a change in the typical clinical manifestation of this pathology in children, lack of effectiveness of treatment despite the improvement of diagnostic methods. Studies show that from 20 to 50 % of patients are sent to a hospital with an incorrect diagnosis; about half of them do not have milk or permanent teeth, which are sources of infection; hospitalization is late. Most of the inflammatory processes because of which children go to the dental clinic are odontogenic in nature.

The aim of the work was to analyze the causes, clinical features of acute odontogenic periostitis of the jawbones in children who were on outpatient treatment.



36 patients aged 3-18 with odontogenic acute jaw periostitis were examined and treated. All of them were admitted to the clinic for emergency indications; after clinical X-ray examination and diagnosis, they received adequate treatment. The clinical efficacy of treatment was determined by the dynamics of the subjective and objective symptoms of the disease.

Among the children who had been admitted to the children's dental clinic for acute periostitis of the jawbones boys prevailed - 63.9 % (23 people), girls made up 36.1 % (13 people). The study made it possible to establish that children aged 4–6 and 7–10 years most often applied for periostitis (31 and 32.7 % of cases, respectively). Less commonly periostitis developed in children aged 1–3 years (3.5 %), 11–14 years (13.8 %) and 15–17 years (19.0 %). In children of early and preschool age, only temporary teeth were the causal teeth of periostitis development (molars – 84 %, incisors – 16 % of cases). In schoolchildren aged 7–10 years temporary molars had causal teeth in 89.5% of cases, permanent first molars in 10.5 % of cases. In schoolchildren aged 11–14 temporary teeth were the cause of periostitis in 25 % of cases, permanent - in 75 % of cases. At the age of 15-17 years the cause of periostitis was only permanent teeth (mostly molars, less often premolars and incisors). The teeth of the mandible became the cause of periostitis 2.2 times more often than the teeth of the upper jaw (69 and 31 % of cases). This pattern was peculiar for both temporary teeth (66.6 and 33.3 %) and permanent teeth (73.7 and 26.3 %, respectively). The majority (72.4 %) of the teeth that caused the development of periostitis had not previously been treated. More than half of the parents noted that they did not deal with the planned rehabilitation of their children, but thought of help only in case of acute toothache. Parents of these children noted: general allergization of the body, frequent inflammatory processes, diseases of the upper respiratory tract (more than 4 times a year), and concomitant diseases.

The study showed that children of the preschool and primary school age are the most vulnerable. The criteria for choosing the place of treatment are the age of the child, the severity of the general condition, social conditions, the possibility of observation and the qualifications of the dental surgeon. Particular attention should be paid to the prevention of caries and its complications in temporary teeth, since their susceptibility is much higher than permanent ones, and they often become the cause of complication development.

**Yavorskyi A.V.**

### **CLINICAL EFFICIENCY OF PLATELET RICH PLASMA USE IN PATIENTS WITH ODONTOGENOUS JAW**

*Department of Surgical Dentistry and Maxillofacial Surgery  
Higher State Educational Establishment of Ukraine  
“Bukovinian State Medical University”*

Odontogenous jaw cysts occupy one of leading places among all diseases of the maxillofacial area. According to information from foreign researchers, the prevalence of various types of odontogenous cysts is rather high (Timofeev et al., 2011).

The analysis of number of patients who came to dentists and studying clinical signs of radiological images shows that odontogenous cysts are registered in 6.4 - 17% among all diseases of the maxillofacial area (Bernadsky et al., 2010; Robustova et al., 2012). Among all jaw cysts odontogenous ones prevail - 98.5% (Timofeev et al., 2016; Bernadsky et al., 2010).

In modern regenerative medicine different biological structures are used as stimulators of regenerative and reparative processes in postoperative bone defect. Use of the platelet rich plasma, trombogel, various biological structures etc. are used (De Pascale, 2015). At the same time, there is no a universal way of receiving the autologous platelet rich plasma that respectively affects the level of growth factors within it. Moreover, it is not researched yet which centrifugation mode is the most optimal for osteogenesis in the postoperative period.

A research objective is justification and improvement of treatment of various forms of odontogenous jaw cysts by stimulation of reparative osteogenesis by application of PRP in the site of postoperative bone defect.