As stated above, the impregnation by silver staining was carried out with Gordon-Suite method for definitions of reticular fibers of the stroma of nasal polyps (Fig. 3, 4). With this type of paintings there were well visualized connecting reticular fibers.

In our investigation, «eosinophilic» polypoid rhinosinusitis marked edema, common in several vacuoles (Fig. 3). Edema includes infiltrated tissues and fluids. Reticular fibers were destroyed and degraded, with the swelling of the vascular endothelium. In «neutrophil» polypoid rhinosinusitis we observed the reticular fibers which were tightly interconnected (Fig. 4).

**Discussion.** Since ancient times, many scholars have presented different classification of nasal polyps. Kakoi and Hiraide (1987), in a series of 175 patients, subdivided polyps into 3 groups: edematous polyps (60%), cystic or glandular polyps (27%) and fibrous polyps (13%) [3]. Davidsson and Hellquist (1993) analyzed 95 patients and classified polyps histologically into four categories: edematous, eosinophilic or “allergic” polyps (86,3%), fibroinflammatory polyps (7,3%), polyps with seromucinous gland hyperplasia (5,3%) and polyps with stromal atypia (1,1%) [3]. Hellquist (1996) analyzed in detail the histological differences between the polyps found in his first study. As a result, his paper became the main reference in the literature on the morphological classification of nasal polyposis [3]. In the current study, we found that the separation of nasal polyps to “eosinophilic” and “neutrophilic” form are reasonable and help determine the course of the disease. In our study by using morphological study we have seen many of the above forms of polypoid tissue, however they are not fully characterized for polypoid process which in our view can be presented in two forms: eosinophilic and neutrophilic polyps. These statements are perfectly in tune with the views of Shin S.H. (2014) and Tecimer S.H. (2015), who supported this opinion [6,7]. We therefore classified such polyps according to their most relevant features. Analyzing of our investigation, we could note that status of reticular fibers showed that for “eosinophilic” polyps proceeds more burdened and requires more careful attention in the diagnosis and treatment.

Thus, based on the survey data, **in the conclusions follow:**

1. In our study, all polypoid rhinosinusitis divided into eosinophilic and neutrophilic types according to their pathologic features. Identification of different forms of chronic polypoid rhinosinusitis is appropriate to determine the flow of the process followed by selection treatment of nasal polyps.

2. The “eosinophilic” polypoid rhinosinusitis observed more pronounced inflammatory reaction as swelling and degradation of the reticular fibers than “neutrophilic” polypoid rhinosinusitis.

**References:**


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**Characteristics of functional conditions of taste analyzer of tobacco cultivation employees**

**Abstract:** On the basis of carried out complex investigations has been estimated that between tobacco cultivators it is observed disorder of taste analyzer as increasing, decreasing and dys-geusia of taste sensitivity. That is why
these disorders can serve as integral indications of negative influence of production factors of tobacco growing into the organism of employees.

Keywords: tobacco, sensitivity, thresholdsense, acidic, salty, bitter, sweet, dysgeusia.

Tobacco industry is one of the highly developing branch of agricultural sector of CIS countries and presented by farmsteads, cultivating tobacco and producing it’s primary processing, fermentation plants, tobacco factories and fabrics. Principal unfavorable production factor, negatively influencing into the employees organism are: alkaloids (first of all nicotine), nitrogen bearing substances of non alkaloid groups (ammonia, asparagines, and glutamines), amines, essential oils and gums. It is established that content of nicotine in the tobacco oscillates from 2 to 2.3%, nitrogen bearing substances of non alkaloid groups — from 3 to 4.6%, essential oils to 2.7% from dry substance, mineral substances — from 7 to 22% [1; 2].

Pesticides (fozalon, herbicides, insecticides) may also enter into the composition of tobacco, which are used as supplements of plants from diseases, weeds and plant pests. It is con-sidered that during the tobacco preparation periods during the case and dehumidification occurs decomposition of pesticides under the influence of high temperature and moisture. But there may be residual content of pesticides in charge product [3].

Meanwhile, in the literature there are data about, that changes in functional conditions of taste analyzer is one of the earlier harmful influence of many chemical substances into the human body [4; 5].

The aim of present research was learning of the condition of taste sensitivity in tobacco employees by the comparison with the control group of examined.

Materials and methods. We studied functional condition of the taste organ of 240 employees in Urgut tobacco cultivating district of Samarkand region, engaging with technological process in tobacco plantations (cultivation, breaking, harvesting, drying, stringing), (main group of investigated) by the indicator excitability, (threshold of stimulation) taste analyzer and in 242 workers of Samarkand vegetable growing district, where relatively ecologically clean zone (control group of investigating). In determination of threshold stimulation were used methodic of drop irritations, offered GOST P ISO 3972–2005 [6].

Received data undergone to statistical data processing with the application package of Microsoft Excel program. Authenticity of the difference was determined by the Student criteria.

Results and discussion. As the results of carried out research (table), that between to-bacco cultivations is observed high rate both absolute (from 4.9 to 38.8 ± 4.4%), and differential (65.4 ± 3.9%) limens of taste. In particular, unchangeable absolute threshold of taste to sweet is observed in 13.4% of tobacco planter, to bitter — 18.3%, to acidic — in 21.9%, to salty in 41.5% of investigated.

More common changes of threshold sense of taste in type of it’s increasing (23.2%), dec-reasing (41.5%) and lack (17%), dysgeusia (4.9%), took place during the investigation of taste analyzer to the sweet. Less threshold of taste perception has been changed to bitter (increasing — 19.5%, decreasing — 36.6%, inversion — 10.9%, lack of taste sensibility — 14.6%, to the acidic (increasing 10.9%, lack of taste sensibility 14.6%, and to acidic (increased 10.9% and lack of sensibility — 9.8%). The least disturbances of the taste sensibility has been observed during the investigation of taste sensibility to salty (increasing of threshold of the taste in 3.4%, decreasing in — 36.6%, dysgeusia in — 14.6%, lack of threshold of taste in — 4.9% of investigated).

Table 1. Rate of disturbance of taste analyzer in tobacco planters (main group) in comparison with the control group (M ± m, to 100 investigated)

<table>
<thead>
<tr>
<th>Taste substance</th>
<th>Workers’ group</th>
<th>Condition of thresholdsense</th>
<th>Changes of differential threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>norm</td>
<td>increased</td>
<td>decreased</td>
</tr>
<tr>
<td>Sweet</td>
<td>Main 13.4 ± 3.7</td>
<td>23.2 ± 4.8</td>
<td>41.5 ± 5.4</td>
</tr>
<tr>
<td></td>
<td>Control 88.6 ± 4.2</td>
<td>–</td>
<td>11.4 ± 4.0</td>
</tr>
<tr>
<td></td>
<td>P &lt;0.001</td>
<td>&lt;0.001</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Salty</td>
<td>Main 41.5 ± 4.1</td>
<td>3.4 ± 0.5</td>
<td>36.3 ± 4.3</td>
</tr>
<tr>
<td></td>
<td>Control 96.2 ± 5.6</td>
<td>–</td>
<td>3.8 ± 0.7</td>
</tr>
<tr>
<td></td>
<td>P &lt;0.01</td>
<td>&lt;0.001</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Acidic</td>
<td>Main 21.9 ± 3.7</td>
<td>10.9 ± 2.1</td>
<td>38.8 ± 4.4</td>
</tr>
<tr>
<td></td>
<td>Control 92.3 ± 4.6</td>
<td>–</td>
<td>7.7 ± 1.8</td>
</tr>
<tr>
<td></td>
<td>P &lt;0.001</td>
<td>&lt;0.001</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Bitter</td>
<td>Main 18.3 ± 3.3</td>
<td>19.5 ± 2.4</td>
<td>36.6 ± 4.2</td>
</tr>
<tr>
<td></td>
<td>Control 34.3 ± 3.7</td>
<td>–</td>
<td>5.7 ± 1.0</td>
</tr>
<tr>
<td></td>
<td>P &lt;0.001</td>
<td>&lt;0.001</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>
Decreasing of the threshold of the taste took place in a small part of employees in the control group as well (to sweet in — 11.4%, to salty in — 3.8%, to acidic in — 7.7, to bitter in — 5.7%). Changes of differential taste threshold was observed only in the men of the main group and rather high rate (in 65.4% of workers). In other words, changes of absolute taste threshold in tobacco planters in many cases combine with the changes of the differential threshold of the taste.

Very characteristic dependence from professional experience discovered during the rate analysis of disorder of taste analyzer in tobacco plant workers in different experience groups. Analysis of this material showed, that disturbance rate of the absolute taste threshold of taste analyzer with the increasing of work experience in tobacco industry grows considerably.

In particular, constant absolute sensitivity of the taste threshold to the sweet in comparing groups observed in proportion in 11 (18.1%), in 10 (17.2%), in 10 (15.3%) investigated (in 4th experienced group cases of constant taste threshold to the sweet have not been observed), to salty in 39 (65.3%), in 28 (48.4%), in 16 (24.6%), in 10 (17.5%) workers, to acidic in 22 (36.6%), in 20 (34.4%), in 15 (23.2%) workers (in 4th experienced group cases of constant taste threshold to the sweet have not been observed), to bitter in 22 (36.6%), in 14 (24.1%), in 10 (15.3%), in 10 (17.5%) investigated. In tobacco growing with 5 years work experience in many cases took place increasing of taste threshold of the sweet in 39 (65.3%), bitter in — 11 (18.1%).

As with the increasing of work experience rate of disorder of taste sensitivity like inc-reasing of absolute threshold decreases (increasing of taste threshold have been observed only to the sweet in men with work experience from 5 to 9 years, and in older experienced groups ha-ve not been observed at all).

By the extension of work experience increases the rate of decreasing of taste sensitivity right up to absolute losing taste sense. In employees with more than 5 years work experience begins perverted sensitivity of taste irritations to the salty and acidic. The frequency of this type of disorder achieves the dimension in workers of 4th work expediency group, at that all types of taste irritators: to acidic in 26 (45.6%), the sweet — in 12 (21.1%), the salty — in 11 (19.2%), and bitter in 10 (17.5%).

The frequency of the taste analyzer disorders in tobacco growing by the indicator of thre-shold irritation against from the work experience in tobacco growing (in brackets indicated percentage of the investigated). It is necessary to note, that in 3rd group (10–15 years) begins expose of taste lack sensitivity to the sweet in 15 (23.2%), to the bitter — in 11 (16.9%), and to salty 10 (15.3%), in fourth work experience group (more than 16 years) to all types of taste ir-ritators.

The most often lack of sensitivity in fourth work experience took place to the acidic in — 26 (45.8%), to the sweet in 20 (35.1%) and to acidic in 20 (35.1%), the least to the salty in 10 (17.5%). Frequency of disorder of differentiated taste threshold increases as well with the lon-gitude of work experience: in 16 (26.6%), in the first work group, in 22 (37.9%) — in the second, in 41 (63.0%), in the third in 47 (82.4%) in the fourth.

So between tobacco growing regions with work experience more than 5 years with high frequency it is observed disorder of functional condition of taste analyzer in the type of inc-reasing (18.1–65.3%) of absolute threshold, and by increasing of the work experience (more than 5 years) decreasing, dysguesia and the lack of taste sensitivity (16.6–48.4%).

Especially important by our point of view is the fact that disorder of taste sensitivity with high rate observed in those tobacco growing, which are not seen visible disorders of general health condition. At the same time with the taste threshold sensitivity we determined the disorder of differential threshold. (65.4 ± 3.9%). It is known [7] that processes of determination of the differentiated threshold are connected both the changes as prepheric and central departments of taste analyzer.

**The conclusions:** 1. That is why determination of differential taste threshold disorder in practical healthy workers allows to consider taste disorder one of the earlier signs of toxic lesion of central nervous system. 2. This by our opinion, should have determined value in the early diagnostics of the determination of harmful affects of productive factors of tobacco growing into the organism of workers.

**References:**