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S.S. Arifov

*Tashkent Institute of Postgraduate Medical Education, Tashkent, 100007, Uzbekistan, dr.arifov@mail.ru*

S.A. Khasanov

*Tashkent Institute of Postgraduate Medical Education, Tashkent, 100007, Uzbekistan, s.askarov@mail.ru*

U.S. Khasanov

*Tashkent Medical Academy, Tashkent, 100109, Uzbekistan, u.khasanov@yahoo.com*

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## The Clinical Course of Chronic Tonsillitis in Persons of Elderly and Senile Age

Arifov S.S.<sup>a</sup>, Khasanov S.A.<sup>a</sup>, Khasanov U.S.<sup>b</sup>

<sup>a</sup> *Tashkent Institute of Postgraduate Medical Education*

<sup>b</sup> *Tashkent Medical Academy*

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### ABSTRACT

*Chronic tonsillitis (CT) in persons of elderly and senile age is characterized by a diverse clinical course and is characterized by a predominance of manifestations of common symptoms of the disease. The prevalence of complaints of the presence of a foreign body, tickling, tingling or burning sensation, dry throat, cough, rapid fatigability, weakness, lethargy, pain in joints and muscles, pain in the heart area has been established. Compared with young people, in all forms of CT, cases of angina in persons of elderly and senile age happened less seldom although a certain pattern persisted, i.e., with the deterioration in the course of CT cases of recurrence of anginas increased.*

### Introduction.

Chronic tonsillitis (CT) is a fairly common disease that occurs among the population. There is a trend of a high prevalence of CT among all age groups of the population. There is a trend of a high prevalence of CT among all age groups of the population. In the structure of morbidity of ENT-organs, the incidence of CT in children reaches up to 38.4%; and in adults it is 5-10% [8]. According to the materials of the First Congress of Otolaryngologists of the Republic of Uzbekistan, the incidence of CT is 16-18% of the total incidence of ENT-organs [7]. These statistics do not include data on the incidence of CT in persons of elderly and senile age. It should be noted that many issues regarding CT remain controversial. In particular, in the literature there are several definitions of CT, there is unified view on the tactics of its treatment [1,6]. According to the results of most studies, systemic complications of CT at present often occur latently, which in many cases is the reason for their late diagnosis [9,10].

In literary sources, the issues of etiology, pathogenesis, diagnosis, treatment of chronic tonsillitis are mainly examined in detail in relation to children, young people and there are only a few publications of long past dedicated to the study of certain aspects of the problem of chronic tonsillitis in persons of elderly and senile age [2]. The information presented in them does not give a clear idea of the features of the clinical course of chronic tonsillitis, its effect on the course of other diseases in persons of elderly and senile age. In this connection, in practice, insufficient attention is paid to issues of diagnosis of this disease, and its adequate treatment is not properly carried out.

### Purpose of the study.

To study the features of the clinical course of chronic tonsillitis in persons of elderly and senile age.

### **Material and methods of the study.**

The age limits of the examined patients are established on the basis of the age group classification proposed by WHO [3]. As per them the age from 60 to 74 is taken to be elderly and the age from 75 to 89 is taken to be senile.

For the period from 2009 to 2018, 131 patients with CT were examined. The main group consisted of 96 elderly and senile CT patients. The age of the patients was from 61 to 83 years (average age  $67.5 \pm 2.5$  years), of which 30 were men, 66 women. The age of men in the main group ranged from 61 to 78 years, women - from 61 to 83 years. The average age of the observed men was  $63.8 \pm 2.9$  years, women -  $71.0 \pm 1.5$ .

In order to compare the clinical parameters of elderly and senile patients, a comparison group was selected which included 35 CT patients aged 25 to 45 years (mean age  $32.2 \pm 2.6$  years), without concomitant diseases. There were 16 men (45.7%) and 19 (54.3%) women.

The general clinical examination began with an assessment of the patient's sensations (complaints), a history of life and illness, an analysis of medical documentation. The clinical examination included an assessment of the condition of the skin, visible mucous membranes, musculoskeletal system, nervous system, and internal organs. The condition of ENT-organs was assessed using otoscopy, anterior and posterior rhinoscopy, stomopharyngoscopy and indirect laryngoscopy.

When diagnosing CT and determining its form the B.S.Preobrazhensky - V.T.Palchun classification was adhered to [5].

The control group consisted of 20 practically healthy persons of elderly and senile age, the average age of which is defined as  $68.1 \pm 1.99$  years with extreme values ranging from 61 to 83 years of age.

Statistical analysis of the results was carried out using statistical software package "Microsoft Excel 2010". The value of the criterion of significance of differences (p) was checked using the Student's t-criterion.

### **Results.**

Of 96 patients in the main group, 61 (63%) showed a simple form of CT. In 24 (25%) patients, a toxic-allergic form of 1st degree CT was identified and in 11 (12%) – a toxic-allergic form of 2nd degree CT was identified. In 16 (45.7%) patients of the comparison group, a simple form of CT was revealed, in 11 (31.4%) - a toxic-allergic form of 1st degree CT and in 8 (22.9%) - a toxic-allergic form of 2nd degree CT was revealed.

Patients' complaints varied depending on the form of CT. They could be conditionally divided into two groups, i.e., characterizing local and general manifestations of the disease. The first of them included the following: pain, feeling of a foreign body, tickling, tingling, or burning sensation, dry throat, presence of halitosis, coughing. In the second - weakness, rapid fatigability, lethargy, headache, fever of an unclear cause, pain in the region of the heart, joints, muscles, palpitations. The incidence of these complaints in patients of the compared groups is presented in Table 1. As can be seen from the data presented in Table 1 in the compared groups, all of the above complaints of a general and local nature were observed. The frequency of occurrence of some of them was significantly different compared with patients in the comparison group. So, in elderly and senile patients a foreign body sensation, tickling, tingling, or burning sensation, dry throat, cough were more common, while sore throat, an increase in

body temperature of an unclear cause were often found in young people. In relation to complaints such as the presence of halitosis, weakness, rapid fatigability, lethargy, headache, pain in the region of the heart, joints, muscles, and heartbeat, there was no significant difference between the compared groups. When analyzing the complaints of patients with forms of CT, it was revealed that in elderly and senile patients with a simple form of CT, there were no complaints of sore throat, an increase in body temperature of an unclear cause.

**Table 1.**

**The list and frequency of complaints of patients with chronic tonsillitis in the compared groups, in percent**

Complaints		Main group N = 96	Comparison group, N = 35
Local	Sore throat	5.1	61.5
	Cough	47.2	15.4
	Dry throat	77.2	9.1
	Feeling of foreign body in the throat	59.4	8.1
	Bad breath	31.2	38.9
	Tingling sensation	22.5	18.8
	Burning sensation in the throat	62.1	21.5
	Tickling sensation in the throat	51	39.4
Common	Rapid fatiguability	71.4	51.4
	Weakness, lethargy	66.9	51.9
	Prolonged subfebrile condition	2.1	24.1
	Decreased performance	22.2	32.2
	Joint, muscle pain	72.1	54.1
	Pain in the region of the heart	69.2	43.2
	Headache	22.4	34.4

A key criterion in the diagnosis of CT is the identification of episodes of earlier anginas. Table 2 shows the results of the occurrence of episodes of anginas during a year over the past 5 years. In the compared groups indicators differing from each other were revealed (Table 2).

**Table 2.**

**Episodes of earlier anginas during a year over the past 5 years (in percent)**

Groups	No cases of tonsillitis were observed	Cases of earlier anginas			
		Total	Of them		
			Once a year	2-3 times a year	4 or more times a year
Main group, N = 96	80,3±0,9	19,7±0,5	13,5±0,2	5,2±0,3	1,04±0,2
Comparison group, N = 35	22,8±0,8*	77,2±0,6*	22,2±0,1	44,1±0,3*	10,9±0,2

Note: \* -  $P < 0.05$  in relation to the same indicator of the main group

In the patients of the main group, in contrast to the comparison group, the course of CT prevailed without episodes of anginas. In the main group in 77 (80.3%) patients there were no episodes of anginas over the past 5 years, and only 19 (19.7%) indicated an earlier episode of anginas during this period. Of these, in 13 (13.5%) patients angina

recurred 1 time, in 5 patients – (5.2%) two or three times and in 1 patient (1.04%) - four or more times a year. For the same period, in the comparison group, 77.2% of patients noted episodes of anginas and only 22.8% denied the fact of an episode of angina. There was also a difference in the frequency of relapses of anginas, i.e. in the main group, cases of a single episode of anginas per year prevailed, while in patients of the comparison group their recurrence was detected 2-3 times during the year.

As can be seen from the table, in patients of the main group compared with the comparison group for all forms of CT, episodes of anginas were less common, although a certain pattern remained, i.e., with a worsening of the course of CT, recurrence of anginas increased. We have compared the presence of episodes of anginas with the clinical form of CT (Table 3).

**Table 3.**

**Results of comparison of the presence or absence of an episode of earlier anginas for the last 5 years with the form of chronic tonsillitis (in percent)**

CT form	Cases of anginas not observed	Cases of earlier anginas
Simple form main, N = 61 comparisons, N = 16	85,2±0,7 24,2±0,6*	14,8±0,5 75,8±0,6*
1 <sup>st</sup> degree toxic-allergic form main, N = 24 comparisons, N = 11	83,1±0,8 3,5±0,3*	21,9±0,6 96,5±0,4*
2 <sup>nd</sup> degree toxic-allergic form main, N = 11 comparison, N = 8	70,1±0,2 0*	29,1±0,4 100*

Note: \* -  $P < 0.05$  in relation to the same indicator of the main group

By the time of inclusion in the study, 32 (33.3%) patients of the main group were under the supervision of an ENT doctor regarding CT, and in the comparison group this indicator amounted to 28 (80%) individuals. In the main group of the remaining 64 patients, 37 (38.5%) up to the age 40 years were given some form of conservative treatment. Due to the achievement of improvement in most patients, treatment has not been completed. In 27 (28.1%) patients, CT was not previously detected.

No direct interdependence has been revealed between the presence of bad habits (cigarette smoking, nasvai smoking, alcohol consumption, etc.), the influence of occupational factors, and the clinical course of CT, which is apparently primarily associated with a small number of observations.

In all patients of the main group and the comparison group, the duration of the disease was five years or more.

Ways of detecting CT in patients of the main group:

- 11 (11.4%) individuals who on their own visited an ENT doctor were forced to do so due to the absence of the effect of treatment of concomitant diseases;
- 24 (25%) people were referred by doctors of other specialties, also due to the insufficient effectiveness of the medical procedures they conducted;
- in 14 (14.5%) cases the disease was detected during preventive examinations;
- in 47 (48.9%) patients, the disease was detected by us when they were receiving treatment for other diseases.

In practice, as a rule, when establishing a diagnosis of CT, identification of two or more local objective symptoms is required. We also adhered to this principle, but considered it mandatory to identify at least two signs with high diagnostic value in each particular case.

In patients with a simple form of CT identification of caseous plugs in the gaps of the palatine tonsils prevailed and in toxic-allergic forms of CT identification of purulent exudate prevailed. Cicatrice adhesions of tonsil lacunae, loosening of their surface were more often in a pronounced form with a toxic-allergic form of the 2nd degree. A similar trend was observed in patients of the comparison group.

When comparing quantitative and qualitative indicators of local objective signs of CT, we established the following features in elderly and senile patients relative to patients in the comparison group:

- a low percentage of detecting an increase in regional lymph nodes;
- a greater number of detection of compaction of the parenchyma of the palatine tonsils, fusion of the edges of the arches with them;
- of the varieties of pathological discharge of tonsil lacunae in toxic-allergic forms of CT tonsilloliths more often prevailed (in the comparison group-liquid pus).

Although the size of the palatine tonsils is not a defining sign of CT, in the absolute majority of the elderly and senile patients, the palatine tonsils did not extend beyond the arches.

#### **Discussion.**

Thus, the following features of the clinical course of chronic tonsillitis in elderly and senile patients were identified:

- prevalence among the complaints of a local nature of a feeling of foreign body, tickling, tingling or burning sensation, dry throat, coughing;
- absence in the patients of elderly and senile age with a simple form of CT of complaints of sore throat, long continuing subpharyngeal fervescence;
- prevalence of manifestations of general symptoms over local signs of CT;
- compared to the comparison group often presence of the following symptoms: rapid fatigue, weakness, lethargy, pain in the joints and muscles, pain in the region of the heart. This was a prerequisite for late diagnosis of CT and, as a result of this observation of patients for a long time by other specialists, lack of achievement of satisfactory general condition.

-in 71 (73.9%) cases CT has been revealed on the basis of the analysis of the reasons for insufficient effectiveness of treatment of diseases of other body organs and systems, which is indicative of the fact of unreasonable inattention of doctors to this pathology;

-predominance of the nonanginal version of the course of CT (80.3%) is also a factor contributing to the late diagnosis of CT in the persons of elderly and senile age.

-during stomatopharyngoscopy, the detection in most cases of compaction of the parenchyma of the palatine tonsils, fusion of the edges of the arches with them against the background of a low percentage of occurrence of an increase in regional lymph nodes creates a false impression of the presence of age-related involution of the palatine tonsils and the failure to perform additional studies to fully assess their functional state;

-presence of dissociation between the presence of complaints of a painful sensation in the region of the heart and the absence of deviations during electrocardiography are linked to the reflex action of the abnormal focus in the palatine tonsils and they are functional in nature.

**Conclusion.**

Peculiarities of the clinical manifestation of CT in persons of elderly and senile age make impact on its detection. For the timely detection of CT in people of this age group, it is necessary to conduct a detailed analysis of complaints, the history of the development of the disease and the life of patients, a thorough assessment of the general and local manifestations of the disease.

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