ETHIOPIAN INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY RESEARCH

eISSN: 2349-5715 pISSN: 2349-5707

Volume: 11, Issue 04, April-2024 SJIF 2019: 4.702 2020: 4.737 2021: 5.071 2022: 4.919 2023: 6.980 2024: 7,662

DETERMINATION OF THE PROPORTION OF VESTIBULAR PATHOLOGY BASED ON MATERIALS FROM PATIENTS' INITIAL VISITS TO A CONSULTATIVE CLINIC

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The authors declare no conflict of interest.

Summary: According to the data of mass surveys of urban and rural population the pathology of the hearing organ is observed in 6% of inhabitants; approximately 0.65-2% of them have a pronounced hearing impairment, which makes speech communication difficult. Clinical observations indicate that among the surdological patients there are individuals with mixed cochleo-vestibular lesions, diseases of the vestibular apparatus, in which there is a need to investigate not only auditory but also vestibular functions in order to establish the nature of the lesion and the choice of treatment tactics. To determine the specific weight of vestibular pathology and its place among other lesions of the ear, throat and nose according to the materials of primary treatment of patients in the consulting polyclinic. We examined 47000 inhabitants living in different zones of the republic and found that the prevalence of all types of vestibular disorders. Complaints of vestibular disorders were presented by 1850 persons, which is 0.42% of the total number of patients and 3.8% of the number of patients with ear pathology. Subsequently, vestibulometry revealed symptoms of vestibular dysfunction in all of these patients. Vestibular disorders in 86% of cases were combined with pathology of the hearing organ, in the remaining 14% - were the result of hypertension, cranial trauma, cervical osteochondrosis, diseases of the central nervous system. On average, the ratio of the number of patients with vestibular pathology to the total number of people with ear diseases is 1:25, i.e. 4 out of 100 patients with ear pathology had pronounced vestibular disorders.
Keywords: vestibular disorders, audiological care, stabilometry, Fukuda test, Frenzel glasses

Relevance: The study of the prevalence of ear, throat and nose diseases is of interest from the point of view of further improvement of planning and organization of medical and preventive care of the population. [4.9.11]

Analysis of the literature shows that the specific weight of ENT pathology in the structure of general morbidity of the population is 9.5-11%. In recent years, the structure of prevalence of diseases of the ear, throat and nose is undergoing changes in the direction of reducing the incidence of acute and chronic purulent otitis media, sinuitis and other forms that previously occurred after some infectious diseases (measles, scarlatina, diphtheria). At the same time, the frequency of upper respiratory tract and hearing organ lesions increased by 1.5 times [12,13].

According to the data of mass surveys of urban and rural population, hearing pathology is observed in 6% of residents; approximately 0.65-2% of them have a pronounced hearing impairment, which hinders speech communication (4,5). This information was the starting point for determining the population's need for surdological care and organizing surdological offices in the country.

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Clinical observations indicate that among surdological patients there are people with mixed cochleovestibular lesions, diseases of the vestibular apparatus, in which there is a need to study not only auditory but also vestibular functions in order to establish the nature of the lesion and the choice of treatment tactics. However, in the general system of ENT pathology, the prevalence of vestibular disorders is poorly studied. [1.3.7]

Purpose of the study. We set a goal to determine the specific weight of vestibular pathology and its place among other lesions of ear, throat and nose according to the materials of primary referral of patients to the consultative polyclinic of Samarkand State Medical University for the last 6 years (2015-2022).

Materials of the study. We examined 47 thousand inhabitants living in different zones of the republic and found that the prevalence of all types of vestibular disorders is 13.7±1.7 per 10 thousand population.

It is also important to find out the frequency of vestibular apparatus morbidity among general ENT pathology. No specific works in this direction have been found. The absence of such data complicates the solution of organizational issues of vestibulometric service improvement.

Results of the study. As a result of studying the documents it was established that during this period 433460 patients applied to the polyclinic for ear, throat and nose diseases. Of these, 48240 people were found to have various ear pathologies (11.1% of the total number of all ENT patients).

Complaints of vestibular dysfunction (dizziness, balance disorder, susceptibility to motion sickness, etc.) were presented by 1850 persons, which is 0.42% of the total number of patients and 3.8% of the number of patients with ear pathology. Subsequently, vestibulometry revealed symptoms of vestibular dysfunction in all these patients.

In different years, the rate of treatment of patients with vestibular pathology varied from 0.34 to 0.58% (M = 0.42) in relation to all outpatient ENT patients, and in relation to patients with ear pathology - from 3.1 to 4.2% (M = 3.8). Vestibular disorders in 86% of cases were combined with the pathology of the hearing organ, in the remaining 14% - were a consequence of hypertension, cranial trauma, cervical osteochondrosis, diseases of the central nervous system.

On average, the ratio of the number of patients with vestibular pathology and the total number of individuals with ear diseases is 1:25, i.e. 4 out of 100 patients with ear pathology had pronounced vestibular disorders.

On the basis of these data we can tentatively predict the expected volume of work of vestibulometric office of polyclinic and labor costs associated with diagnostic examination of patients with vestibular disorders. Let's assume, for example, that the given consulting polyclinic receives 10000 outpatients per year. According to our results, about 11% of them, i.e. 1100 people, will be patients with ear pathology. Among the latter, 4%, i.e. 44 persons, will have various vestibular disorders and will need vestibulometric examination. Since a single examination is not always reliable (due to the novelty of the procedure, possible patient fatigue, neuropsychiatric tension, etc.), each patient requires at least two examinations. Thus, 44 individuals need 88-90 examinations.

Diagnosis of vestibular apparatus disease is a labor-intensive process that requires the attention of the patient and the staff. The examination program includes performance of the following main stages: 1) study of complaints and vestibular anamnesis of the patient; 2) examination by an otolaryngologist (if necessary, consultations of other specialists); 3) study of static balance stability (by the method of stabilometry; 4) study of gait with the "Fukuda walking test"; 5) determination of spontaneous and positional nystagmus with the help of Frenzel glasses; 6) caloric stimulation according to the Hallpike method or according to the method of N.S. Blagoveshchenskaya with

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registration of nystagmus, sensory and vegetative reactions; 7) rotational stimulation with registration of the same vestibular reactions; 8) deciphering the results of electronystagmography, other reactions, analyzing the data and issuing a conclusion about the state of vestibular function [2.6.12].

One vestibulometric examination according to the described program, as our chronometric measurements have shown, takes from 1 to 2 h. 20 minutes (on the average 1,5 hours). Thus, for carrying out 90 vestibulometric examinations time expenditures will make approximately 180 hours. Assuming that the working day of an otolaryngologist of a consulting polyclinic, who is charged with the duty to conduct vestibulometric examination of patients, is 6 hours, he will need about 28 working days to perform 90 studies.

On the basis of such calculation it is possible to plan with a certain degree of confidence the need of a particular polyclinic in vestibulometric studies and rationally distribute the workload of specialists. As starting points for determining the need can serve two indicators: a) the share of the number of patients who go to the consulting polyclinic in connection with vestibular disorders is 0.42% of the total number of otolaryngological patients or b) 4% of the total number of all surdological patients. It is quite clear that these figures can not claim to absolute reliability and are only indicative. If we take into account that the consultative polyclinic of the Institute referred mainly patients from other ENT institutions, who had undergone preliminary otolaryngological selection and needed to clarify the nature of the disease or to determine the rational tactics of treatment, it can be assumed that the figure of primary referral of patients with probable vestibular disorders to the usual outpatient ENT polyclinics is much higher.

The seemingly "unprofitable" vestibulometric room when examining patients in outpatient clinics is fully compensated by examination of inpatients hospitalized due to exacerbation of chronic purulent otitis media or upcoming hearing-improving surgery for the consequences of middle ear inflammation, otosclerosis. In these cases vestibular function disturbance is observed in 20-98% of the examined individuals. In such patients vestibulometry as an objective method of research is repeatedly performed, which allows to observe the dynamics of the process, to detect early manifestations of postoperative labyrinthitis, to evaluate the effectiveness and determine the tactics of treatment, to predict the results of surgical interventions.

Conclusion. The workload of the vestibulometric office when examining hospital patients is determined by the number of hospitalized persons, the nature of pathology, the frequency of vestibular disorders. Each patient with labyrinth complication after purulent otitis media or hearing-improving surgery is subjected to vestibulometric examination at least 2-3 times. After radical surgery, tympanoplasty, vestibular disorders occur more often (approximately in 70-90% of cases) than after stapedoplasty (4,6). Depending on the equipment of the vestibulometric room and the volume of applied methods, the time spent on examination of one person with interpretation and evaluation of results can vary from 40-60 min to 2 hours.

Having these approximate figures, it is not difficult to calculate the need of a consulting polyclinic and ENT hospital in vestibulometric studies in relation to the specifics of their work.

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