

Studying Factors in The Development of Opticochiasmal Arachnoiditis

Nabiev A. A.

Samarkand State Medical University
Samarkand, Republic of Uzbekistan
Address: Samarkand, A. Temur street 18
E-mail: nabievakmal@gmail.com Tel.: +998905053591

Abstract

According to the Department of Health for the period from 2003 to 2008. the level of diseases of the nose, nasopharynx, tonsils and paranasal sinuses in the CIS countries increased by 1.5 times [3]. The average incidence rate per 1000 population, according to our research, was 28.2 cases, which exceeds the data for Russia (24 cases) and the Samara region (26 cases) [5, 6]. In the structure of diseases of the nose, nasopharynx, tonsils and paranasal sinuses among residents of Togliatti, chronic sinusitis predominates, the level of which increased from 47.3% (2003) to 55.7% (2008), which leads to opticochiasmal arachnoiditis. The above determines the relevance of research in the field of practical ecology, biology and medicine.

Keywords: opticochiasmal arachnoiditis, sinuses.

Introduction

The purpose of the work is to determine the clinical features of the course of chronic sinusitis in patients living in different environmental conditions - an industrial city and rural areas.

Objectives of the study: 1. to study the duration and frequency of exacerbations of opticochiasmal arachnoiditis; 2. determine the age limit of the sick; 3. examine the localization and nature of the lesion of the sinuses.

Material and methods

220 people were examined - 130 residents of the city of Tolyatti and 60 people living in villages of the Samara region, suffering from chronic sinusitis. The duration of the disease was 5-7 years. The working conditions of the surveyed persons were not associated with hazardous production. 30 healthy people living in environmentally friendly conditions were taken as controls.

Research results and discussion

A sharp decrease in visual acuity in patients was always accompanied by changes in visual fields. Of the 27 (36.5%) patients we observed, bilateral central absolute or relative scotomas were revealed in the field of view. In 15 (20.3%) patients, concentric narrowing of the visual fields was

noted. In 10 (13.5%) patients with ACC there were bitemporal changes in visual fields; in 22 (29.7%) patients it was not possible to determine the visual field.

42 (56.8%) patients with opticochiasmatic arachnoiditis underwent pneumocistern therapy with ozone, and the remaining patients received traditional treatment. The criteria for clinical assessment of the therapeutic effect of ozonocisternotherapy is the dynamics of visual functions.

When analyzing the treatment results, it was revealed that among 42 patients after pneumocistern therapy with ozone, only 26 (60.4%) patients had an improvement, including an improvement in 5 patients to 0.5-1.0 and in 9 patients – up to 0.3 -0.4 and finally, in 13 patients – up to 0.1-0,2.

In patients who did not undergo pneumocistern therapy with ozone, visual function improved in only 5 patients (15.6%), 2 patients - up to 0.1 and 3 patients - up to 0.07-0.09.

Among patients who were practically blind in both eyes, restoration of visual function after ozone therapy occurred in 5 (31.3%) of 16 patients. In practically blind patients who did not undergo pneumocistern therapy, no improvement in visual function was noted in 6 patients.

Relatively good results of vision restoration were obtained in patients with partial blanching of the optic discs in the absence of signs of acute or subacute inflammatory process in the optic nerves. We assume that ozone during pneumocistern therapy separates adhesions in the chiasmellar region and improves liquor circulation in the chiasmal cistern.

Conclusions

1. In the city of Samarkand and the surveyed villages, the average age of patients with opticochiasmatic arachnoiditis is on average 36.5 years.
 2. In 76% of city dwellers, opticochiasmatic arachnoiditis is manifest.
 3. Ozonocisternic therapy is an effective method of treating opticochiasmatic arachnoiditis, helping to restore visual function and reduce disability.
- Solving the problem of rational treatment of patients with opticochiasmatic arachnoiditis has important social, scientific and practical significance: reducing the duration of disability and returning to socially useful work.

List of used literature

1. Weinstein GW, Powell SR, Thrush WP. Chiasmal neuropathy secondary to rheumatoid pachymeningitis. *Am J Ophthalmol* 1987;104:439-40.
2. Hassan A., Crompton JL, Sandhu A. Traumatic chiasmal syndrome: a series of 19 patients. *Clin Exp Ophthalmol*.2002;30:273–280.
3. Savino PJ, Glaser JS, Schatz NJ Traumatic chiasmal syndrome. *Neurology*.1980;30:963–970.
4. Vellayan Mookan L., Thomas PA, Harwani AA Traumatic chiasmal syndrome: a meta-analysis. *Am J Ophthalmol Case Rep*.2018;9:119–123.
5. Atipo-Tsiba PW, Borruat FX Traumatic dysfunction of the optic chiasm. *Klin Monbl Augenheilkd*.2003;220:138–141.
6. Tang RA, Kramer LA, Schiffman J, Woon C, Hayman LA, Pardo G. Chiasmal trauma: clinical and imaging considerations. *Surv Ophthalmol*.1994;38:381–383.