Summary: Possibilities of treatment of diplopia when suffering from paralitic strabismus with the use of conservative methods

Purpose

The aim of this thesis is to assess the effectiveness of ambulant pleoptic-ortoptic exercises complemented by domiciliary rehabilitation using specially adapted software – applied to patiens with suddenly occured eye movement disorder and diplopia.

Methods

Representative sample was composed od 86 adult patients suffering from sudden eye movement disorder and diplopia, containing 33 rehabilitating ones in treatment group and 53 not rehabilitating patients in control group. The eye movement disorder was caused by cerebrovascular accident, craniocerebral injury or vascular disease. All the patients underwent complex eye and ortoptic examination as well as objectification of the eye movement disorder and diplopia by Hess-Lancaster test. Both treatment and control group have been observed for 3 – 6 months.

Results

An average improvement of 96.8 % ($P \leq 0,01$) was reached in the treatment group – in case of the extent of horizontal deviation of strabismus (for rehabilitating adults having the infliction n. VI of one eye). In the control group 28.1 % ($P \leq 0,00001$) was noticed. The patients having the infliction n. III and n. IV of one eye improved of 73.7 % ($P \leq 0,0008$) in the treatment group; and of 36.3 % ($P \leq 0,05$) in the control group. An average improvement of vertical deviation of strabismus – considering the patients suffering from infliction n. III and n. IV – reached 43.5 % ($P \leq 0,002$) in the treatment group; 19.9 % ($P \leq 0,04$) in the control group.

Conclusions

This study demonstrates higher percentage improvement of the size of strabismus deviation and movement deficit in case of adult rehabilitating patients as compared with spontaneous partial adjustment of eye movement disorder in patients who didn´t undergo the treatment. Domiciliary rehabilitation with complementary use of specially adapted software seems to serve as an appropriate supplement to traditional treatment in the form of pleoptic-ortoptic

exercises, which still occupy irreplaceable position in rehabilitation of eye movement disorders of various etiology.