

ЗАМІТКИ З ПРАКТИКИ

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Effectiveness of Treatment of Retinal Central Vein Pretrombosis and Prevention of Possible Complications

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Summary. Retinal vein thromboses comprise almost 60% of all acute vascular pathology of the ocular diseases and are only second to diabetic retinopathy by severity and prognosis of retinal disorders. The paper contains a very interesting clinical evidence of 43 years old patient D. This clinical case is especially interesting for medical practitioners who have to consider that thrombosis prevention is possible in case of proper educational effects of popular medical information as well as appropriate treatment.

Key words: *pretrombosis, phosphen, Humphrey.*

Problem statement and analysis of the latest studies. Prevention of vascular disorders of the optic nerve has considerable social, scientific and practical importance, given that this pathology is one of the main reasons of the optic nerve's atrophy, defective vision and blindness in adults. There are many evidences of the relationship between retinal changes and the risk of stroke, cerebral pathology of small vessels, coronary disease, congestive heart failure, the development of renal dysfunction on the background of hypertension and cardiovascular mortality, independently to the level of blood pressure and other cardiovascular risk factors [3,4]. The presence and severity of microvascular changes in the retina can be used as a marker for assessing the risk of cardiovascular disease.

Retinal vein thromboses comprise almost 60% of all acute vascular pathology of the ocular diseases and are only second to diabetic retinopathy by severity and prognosis of retinal disorders. In 15% of cases, retinal vein thrombosis is the cause of disability that means invalidization. Occlusion of retinal veins leads not only to a decrease of visual acuity, but also to the development of complications such as neovascular glaucoma, recurrent hemorrhages, resulting in patients disability, leading to the loss of people's vocational fitness in working age [T.N. Kisel'eva, 2001].

The effectiveness of treatment and prevention of long-term effects and complications depends on opportune and adequate assistance. Popularization and accessibility of information will allow early start of treatment. Preliminary to the central retinal vein thrombosis in pretrombosis stage, characterized by painless blur of vision during several days.

For today, treatment of retinal vein thrombosis remains quite a serious problem.

There is a variety of current retinal's vein thrombosis treatments, including the assignment of medicines and laser surgery, cryotherapy. Antithrombotic therapy is aimed at the speedy restoration of patency of thrombosed vessels of the retina, and at their reocclusion. To dissolve blood clots, which closed veins are used thrombolytic drugs [YS Astakhov and et al., 2005]. Among the main drugs that used in a case of retinal vein occlusion are isolated following groups of drugs: thrombolytics, fibrinolytics.

The thrombolytic and fibrinolytic drugs include streptokinase, urokinase and close to these compounds, activator of tissues plasminogen and plasminogen directly himself. Information of high streptodekaze efficiency (immobilized streptokinase) in the treatment of retinal vein thrombosis firstly published by L.A. Katsnelson et al. in 1983. Currently used drugs that have antithrombolytic effects.

There are three generations of antithrombolytic agents: aspirin (first generation), which blocks the synthesis of thromboxane A₂ - a powerful inducer of thrombocyte's aggregation; clopidogrel and tiklopidin (second generation), which blocked ADP receptors, abciximab (third generation) that inhibited IIb / IIIa-receptor of thrombocytes [Y.S. Astakhov and et al., 2005].

Among the drugs used for local administration, the most

widely used anticoagulants of direct action, such as heparin. It is believed that the therapeutic effect of the heparin is achieved by extending the activated partial prothrombin time (APTT) for 15-25 times. Keep in mind the high risk of hemorrhagic complications associated with possible overdose of direct anticoagulants [E.N. Chazov, 1977; M.P. Savenkov et al., 1997, A.U. Yatsenko, 2004]. In a case of retinal vein thrombosis is used combination of heparin with dexamethasone in solution by parabalbar injection for creation of local hypocoagulation [L.A. Katsnelson, 1990].

In the complex treatment of ischemic and non-ischemic central retinal vein thrombosis and its branches many ophthalmologists applies hemodilution. Hemodilution - a method of transfusion therapy, which involves dosed blood dilution by plasma solutions [A. Remky et al., 1994; H.C. Chen et al., 1998]. There are many methods of blood dilution. H.C. Chen et al. (1998) conducted a course of izovolemik hemodilution for 6 weeks, during the first 2 weeks the procedure was carried out 2 times a week, then for the next 4 weeks once a week. During the session were removed 500 ml of blood and injected equal volume of 6% solution hydroxyetil.

Y.S. Astakhov et al. (2005) used three methods of blood dilution:

- Hemodilution was carried out by removing 300-400 ml of blood that was followed by injection of the same volume of reopolyglucine solution - 2 times a week for 2 weeks;

- Within 10-14 days, every second day intravenous appointment of trental at a dose of 50-200 mg / day with 200-400 ml of compatible low-molecular plasma substitute; 200-400 ml intravenous injection of reopolyglucine every other day for 14 days, sometimes in combination with low doses of dexamethasone (4-8 mg).

In clinical practice, most widely used methods based on the use of laser radiation. Laser coagulation has a special place in the treatment of retinal vein thrombosis [S.N. Fedorov, 1983; P.I. Saprykyn, 1982; F.A. L'Esperance, 1983]. The best effect will occur in a timely and comprehensive treatment of patients with retinal vein thrombosis. Treatment should be chosen individually in each clinical case and agreed with the therapist, and if necessary - with a hematologist [V.I. Luchyuk, 1991; V.S. Ly-senko, 2001]; thrombocytopenia or fibrinolytics, anticoagulants, antithrombolytics, corticosteroids [V.E. Tankovsky, 2000].

Study results. In this regards a clinical evidence of 42 years old patient D. is very interesting. He appealed to the polyclinic department of the regional clinic hospital for medical aid with such complains as blurring of the vision for a week. OBJECTIVE SIGNS: visual acuity of the right eye = 0.7; visual acuity of the left eye = 1.0. Refractive power of the right and left eyes is emmetropic. Anterior segment of both eyes are without visible changes, the optical mediums are transparent. Right eye fundus: optic disc hyperemic, it's edges are blurred, excavation poorly visualized, tortuously changed vessels, blood smears localized near the optic nerve papilla and along the upper nasal branches of the CRV up to the first dichotomic division. Left eye fundus: optic nerve papilla is pale pink, has clear margins, excavation is visible, slightly constricted vessels, macula and peripheral part of retina without pathological changes.

An additional apparatus examination: phosphen diagnostic (El. Sens. Lev. OD- 63.0, El. Sens. Lev. OS- 48.0; lab. OD - 43.3, lab. OS - 40.0); Humphrey (OD MD-7.27dB, PSD + 3.36dB); perimetry - concentric narrowing on 5 - 10. Brain CT-organic changes in the brain have not been identified. Assigned

consultation of the neurologist (preliminary diagnose: Optical chiazmal arachnoiditis. Optic neuritis), monitoring of blood pressure (it is ranged from 120/80 to 135/90 mm Hg) and intraocular pressure (IOP fluctuation-from 20 to 24 mm Hg). After summing all established results we decided to put presumptive diagnose: Central retinal vein pretromboz of the right eye. Appointed treatment: p / b in the right eye - Fibrinolysin 300OD + Dexamethasone 0.25% -0.5 ml + Lidocaine 2% -0.5 ml № 10, Emoxipin-1.0 ml № 10; i/m Lidaza- 1.0 ml № 10, Tiatriazolin- 2.0 ml №10, Actovegin -5.0 ml № 5, Dicynone- 2.0 ml № 10, i /v Mildronat - 5.0 ml № 5 on the solution of 0.9% sodium chloride-15.0 ml, Cerebrolysin-5.0 ml in solution of 0.9% sodium chloride- 15.0 ml № 5; per os tab. Detralex - 1t.-2 times a day for one month, tryfas – 1 times a day-5days. On the tenth day of treatment were received preveouse visual acuity, on the fourteenth day – refined results of Humphrey -OD MD-1.56dB, PSD +2.63 dB; on twenty eighth day – renewed vision fields and limits of the optic nerve.

Conclusion. This clinical case is interesting for practitioners who have to consider that thrombosis prevention is possible in case of proper educational effects of popular medical information as well as appropriate treatment.

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Вадюк Р.Л.

Ефективність лікування претромбозу центральної вени сітківки (ЦВС) та попередження можливих ускладнень

Резюме. Тромбози ретинальних вен складають близько 60% від усієї гострої судинної патології органу зору і знаходяться на другому місці після діабетичної ретинопатії за важкістю ураження сітківки і прогнозом. Стаття містить цікавий випадок із 42-річним хворим Д., який звернувся до поліклічного відділення ОКЛ із скаргами на загуманення зору протягом тижня. Цей клінічний випадок представляє інтерес для практичних лікарів, які мають врахувати, що попередження тромбозу є можливим при правильній загальнопропівітній роботі, а також правильному підході в лікуванні.

Ключові слова: претромбоз, фосфен, Humphrey.

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