**Тематический план практических занятий по офтальмологии для студентов 6 курса ФИС**

*Тематический план утвержден на заседании кафедры оториноларингологии с курсом офтальмологии (протокол №8.1 от 16.06.2023)*

**1. Methods of study of the vision. Practical skills examination of patients with diseases of the eye.**

1. Physiology of visual perception. Pathology of visual functions : central , peripheral vision , color vision , light perception and binocular vision. Basic principles of diagnosis of visual functions.

2. Modern methods of investigation of visual function . Visual acuity as a function of the macula. Eidoptometry formula Snellen . Principle of tables for visual acuity . Study of visual acuity in children. Peripheral vision as a function of the paracentral and peripheral regions of the view. Kinetic and static perimetry , the control method for determining the field of view. Defects in sight - narrowing boundaries hemianopsia, scotoma. Types of congenital and acquired disorders of color vision, their frequency. The role of heredity. Methods of study of color vision . Izopolihromatic table E.B.Rabkina and principles of their construction . The role of color vision research for the diagnosis of lesions of various parts of the organ of vision . Methods of study of dark adaptation. Day-blindness inherent , essential , symptomatic ; its connection with the general state of the organism. Causes of binocular vision disorders , research methods .

3. For further evaluation of the patient with eye diseases . The main body of the survey methods . External examination of the eye and adnexa . Features of the external examination in infants and young children. Methods lateral or focal lighting. The technique is simple and combined side lighting . Study in transmitted light. Investigation of the lens and vitreous humor . Ophthalmoscopy . Investigation of retinal choroidal optic disc . Biomicroscopy . Meaning biomicroscopy to diagnose and monitor the progress of eye diseases. Ehobiometriya . Oftalmotonometriya .

**2. Pathology eyelids, conjunctiva and lacrimal apparatus. Pathology of the cornea and sclera . Pathology of the oculomotor apparatus of the eye. Pathology of the lens. Pathology of vascular tract of the eye. Changes in the eye of common diseases of the body.**

1. Inflammatory diseases of the eyelids. Diseases of the lid margin. Different types of blepharitis. Cartilage disease eyelids , sebaceous and meibomian glands. Conservative and surgical treatment . Allergic diseases of eyelids. Neoplasms eyelids.

2. Malformations and regulations eyelids: mikroblefaron, kriptoftalm, ankyloblepharon, coloboma, blefarohalazis, blepharophimosis, eversion, inversion, epicanthus, lagophthalmos. Congenital and acquired ptosis. Complications of ptosis (amblyopia, strabismus) . Indications, principles and methods of surgical treatment.

Pathology lacrimal apparatus. Research methods lacrimal apparatus. Lacrimal gland pathology . Sjögren's syndrome . Pathology of the lacrimal pathways. Pathology lacrimal points, tear ducts, the lacrimal sac and nasolacrimal -nasal canal. Dacryocystitis newborns. Chronic dacryocystitis. Principles and methods for the treatment of dacryocystitis.

Phlegmon and fistula of the lacrimal sac. Congenital anomalies of the lacrimal gland (absence, hypoplasia, ptosis ).

3. Conjunctivitis. Classification. Methods for etiologic diagnosis . Frequency , agents , route of infection , the characteristic clinical symptoms, causes of complications during gonorrhoeae, diphtheria , adenovirus , pneumococcus , acute epidemic , vernal conjunctivitis . Differential diagnosis of conjunctivitis. Chronic conjunctivitis.

4. Chlamydial conjunctivitis ( trachoma, paratrahoma adult inclusion conjunctivitis neonatal chlamydial conjunctivitis epidemic, chlamydial conjunctivitis with Reiter's syndrome, zoonotic nature).

5. Trachoma. Pathogenesis, clinical features , principles and duration of treatment , prevention of trachoma . Complications, outcomes. Degenerative changes in the conjunctiva. Tumors of the conjunctiva.

6. 1. Keratitis. General symptoms, classification keratitis. Clinical features of keratitis in children*. Exogenous (infectious bacterial, fungal and secondary catarrhal keratitis ), endogenous ( herpes , tuberculosis , syphilis ) keratitis . Keratitis caused by herpes zoster virus. Neuroparalitical keratitis . Avitaminous keratitis . Keratitis of unknown etiology . Diagnostic methods. The average duration of the various currents of keratitis . Principles and duration of treatment. Complications, outcomes of injuries and diseases of the cornea. Keratoplasty .

7. Congenital anomalies of the cornea. Micro-and makrokornea keratoconus , keratoglobus . Dystrophy and corneal degeneration . Tumors of the cornea.

8. Inflammation of the sclera : episcleritis , scleritis , scleral abscesses . Anomalies of color and shape of the sclera . Blue sclera syndrome , melanosis , staphylomas .

9. Definition and classification of strabismus. Geteroforii . Determining the nature of vision. Causes of strabismus. Research methods. Principles of prevention and treatment. Concomitant strabismus . Causes . Classification . Complications of strabismus and their causes . Amblyopia . The severity of amblyopia. Timing , stages and continuity in the treatment of concomitant strabismus : correction of refractive error , pleoptic , orthoptic , surgical treatment. Prevention of concomitant strabismus . Clinic , the most common causes . Differential diagnosis of paralytic and concomitant strabismus .

10. Types and frequency of pathology of the lens. Diagnostic methods.

11. Classification of cataracts. Modern principles of treatment. Share in the structure of low vision and blindness.

12. Age ( senile ) cataracts. Cortical, brown , mixed. Clinic. Stage of development of cataracts . Conservative treatment in the initial stages. Indications for surgery. Cataract extraction methods . Cryoextraction . Phacoemulsification . Indications , timing of surgical treatment, and outcomes. Secondary ( postoperative cataract ) . Causes , clinical treatment.

13. Complicated cataract. Cataract on the basis of common diseases ( diabetes), common infections (diphtheria , smallpox, malaria) , processes for eye (glaucoma, myopia, uveitis, retinitis pigmentosa , retinal detachment ) , as a result of mercury poisoning , nitrite , protein starvation , ionizing radiation , damage , etc. The clinical picture of these types of cataracts. Prognostic value of complicated cataracts in common diseases. Treatment of cataracts depending on the etiology of the process and the degree of lens opacification.

14. Congenital cataracts . Classification of cataracts in children. Indications for surgical treatment depending on the magnitude of cataract , its localization , visual acuity, age of the child . Treatment of amblyopia of obscure origin .

15. Intraocular correction . Aphakia , its symptoms , principles aphakia correction for distance vision and near . Correction of unilateral aphakia . Pathology position of the lens.

16. Malformations of the lens. Changes in disease Marfan Marchezani and other syndromes. Methods and timing of treatment outcomes.

17. Incidence of vascular tract of common ocular pathology . The structure of the vascular tract diseases (inflammatory , degenerative processes , tumors , congenital anomalies ) . As a cause of severe outcomes of low vision and blindness .

18. Inflammation of the vascular tract . Etiology, pathogenetic mechanisms of uveitis : infectious- metastatic and toxic- allergic . Classification of uveitis with the flow, localization , clinical and morphological picture , etiology , immunology . Main morphological , functional features and mechanisms of development of anterior uveitis ( iridocyclitis ); Posterior uveitis ( horioiditov ); panuveitov . Age features of the course and outcomes of uveitis . The diagnosis of diseases of the vascular tract depending on the etiology of clinical , laboratory , radiological, and immunological picture ( collagenous , virus , tuberculosis , syphilis , toxoplasmosis , focal , etc.). Organization principles and general methods of local treatment of the front and rear uveitis depending on the nature and etiology of the process. Complications of uveitis . Metastatic ophthalmia . Outcomes Prevention .

19. Anomalies choroid ( aniridia , coloboma , POLYCOR , ectopic pupil , albinism , aplasia ) .

20. Degenerative diseases of the iris and ciliary body . The incidence . Causes . Forms (chronic dysfunction of the ciliary body , Fuchs syndrome ) . Differential diagnosis of anterior uveitis . The clinic, for , principles of treatment.

21. Ophthalmic symptoms in cardiovascular, neurological, infectious diseases, HIV infection, blood diseases and endocrine diseases.

**3. Glaucoma. Damage to the eyes and adnexa.**

1. Determination of glaucoma. Incidence and prevalence of disease. Social importance of glaucoma as a major cause of blindness. Intraocular pressure. Circulation of aqueous humor . Regulation of intraocular pressure. The main types of glaucoma .

2. Primary glaucoma. Current views on the etiology and pathogenesis . Factors predisposing to the development of glaucoma. Hereditary factors in glaucoma. Classification of primary glaucoma. The clinical course of open and closed-angle glaucoma. Absolute glaucoma. Methods of diagnosis of glaucoma: tonometry, elektrotonometriya, biomicroscopy, ophthalmoscopy , gonioscopy , perimetry. Methods for early diagnosis of glaucoma. Subjective and objective symptoms depending on the stage of the disease. The clinical course of acute glaucoma attack , general and local symptoms. Pathogenesis of acute attack. Differential diagnosis of acute iridocyclitis ; a number of common diseases. Emergency treatment of an acute attack of glaucoma. Indications for surgical treatment. Lightning glaucoma.

3. Principles of conservative treatment of open and closed-angle glaucoma. Medicinal topical treatment mechanism of action prescribing principles depending on the form of glaucoma. Use of general exposure. Mode, diet, employment. Indications for surgical treatment. Principles of pathogenesis-oriented operations. The use of physical factors in the treatment of glaucoma (lasers , high and low temperatures ). Clinical examination of patients with glaucoma. Prevention of blindness from glaucoma .

4. Secondary glaucoma: uveal , fakogennaya, vascular, traumatic, degenerative, neoplastic. The course and treatment. Outcomes.

5. Congenital glaucoma . Frequency . Etiology and pathogenesis . Influence of various pathological conditions of pregnant women for the development of the anterior chamber angle . The role of heredity . The earliest signs of the disease . Classification form. Clinic stage within. 6. Gidroftalm , buphthalmos . Principles , terms and methods of surgical treatment of congenital glaucoma . Outcomes forecast

6. Place eye injuries in general injuries . Frequency of household, school and workplace injuries. Classification of eye damage etiology, localization, severity, presence of foreign bodies and properties. Diagnostic methods. The main types of primary health care. Outcomes. Treatment of complications . Prevention of eye injuries.

7. Injured century, conjunctiva and lacrimal organs . Primary health care in them.

8. Injured eye. Classification: non-penetrating, penetrating ; simple, complex , with complications. Symptoms of perforated wounds cornea and sclera. Signs through wounds. Primary health care. Primary surgical treatment. Methods of determination and localization of foreign bodies. Radiology of foreign bodies in the eye. Principles and removing magnetic amagnitnyh foreign bodies. Metallosis and the timing of its manifestations. The mechanism of development of the various symptoms of metallosis. Complications of penetrating wounds: traumatic purulent iridocyclitis, purulent iridocyclitis, endophthalmitis, Panophthalmitis . Clinic for treatment, and outcomes.

9. Sympathetic ophthalmia . Frequency and timing of occurrence, etiology and pathogenesis . Clinical forms. General and local treatment, prognosis, prevention. How to remove the injured eye and timing operations.

Blunt damage eyeball. Their frequency, clinical picture, course , and outcomes . Classification by severity , treatment principles .

10. Features combat damage. Features of injury, mikrotravmatizm methods of individual and social prevention.

Burns of the vision: chemical, thermal, radiation. Classification of burns on their severity and prevalence. Clinical features , course and treatment of burns caused by acids, alkalis, manganese crystals. Emergency care. Treatment of burns: conservative and surgical .

11. Radiation damage to the organ of vision . Ultraviolet radiation , infrared radiation, X-rays and ionizing radiation , laser radiation in different parts of the spectrum , radio waves, UHF, microwave , ultrasound, visible part of the spectrum is more brightness.