IRIDOCYCLITIS /RHEUMATIC UVEITIS

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Abstract: *Uveitis is an inflammation of the uveal tract. Among the multiple factors involved in the etiology of uveitis, rheumatic diseases have an important role, in many cases uveitis being the first manifestation of the disease. Treatment of the underlying disease is confused with the general treatment of the uveal condition. This paper presents clinical symptoms, diagnosis and treatment principles for the rheumatic iridocyclitis.*

Cuvinte cheie: *iridociclita reumatoidă, spondilita anchilopoetică, HLA B-27K*

Rezumat: *Uveita reprezintă inflamaţia tractului uveal. Dintre multiplii factori implicaţi în etiologia uveitelor, un rol important revine bolilor reumatismale, în multe cazuri uveita fiind prima manifestare a bolii. Tratamentul bolii de bază se confundă cu tratamentul general al afecţiunii uveale. Lucrarea de faţă prezintă simptomele clinice, principiile de diagnostic şi tratament al iridociclitelor reumatismale.*

INTRODUCTION

Anatomical uvea structure and etiology of uveitis

Uvea consists of three distinct parts: iris, ciliary body and choroid. It is a richly pigmented structure, highly vascularized, located in the sclera, which coats the inner part. It is considered the nutrient membrane of the eye, by enabling most of the intake stroke of the eye. From the point of view of anatomical function it can be divided into: anterior uvea, represented by the iris and ciliary body, the affectation being called anterior uveitis and posterior uvea represented by the choroid- the affectation being called posterior uveitis. Most frequent cause of rheumatic iridocyclitis is ankylosing spondylitis, but iridocyclitis is a major sign in other rheumatic diseases, such as *psoriatic arthritis*. What is common in these rheumatic diseases is the presence of the HLA B-27 (human leukocyte **antigen** B27). It is present in the population at a rate ranging between 1.4 and 8%. It is considered that 50-60% of patients with iridocyclitis are HLA B-27 positive. Disorders in which rheumatoid factor is negative but the HLA B-27 is present, are classified as rheumatic diseases called seronegative **spondylarthropathy**. HLA B-27 test should be performed in all patients with prior recurrent ungranulated uveitis, but biasing this test does not exclude the diagnosis of rheumatic iridocyclitis. (1)

Ankylosing spondylitis

Predominantly affects young men. HLA B-27 was found in 88% of patients therefore the probability that a patient with HLA B-27 can develop a bone or eye disease is estimated at 25%. Ocular symptoms of ankylosing spondylitis in early development are characterized by a fibrinous exudate in the anterior chamber and posterior field, with the emergence of synechia. Posterior synechia, which is formed between pupillary edge and anterior crystalloid is well highlighted after pupil dilation taking an irregular shape.(2, 3).

Goniosynechia is present at the level of camerular angle. Untreated, posterior synechia leads to annexation of pupil edge throughout its entire circumference to the surface lens which is called *seclusion of the pupil*. The emergence of the exudation in the pupillary field, which is deposited as a membrane of whitish color, makes it virtually impossible to view the lens, something known as pupillary occlusion. The impossibility of passing of the aqueous humor from posterior chamber to anterior chamber increases eye pressure and secondary glaucoma development. Because of the symptoms of the acute eye, the ophthalmologist is often the first to make the diagnosis of ankylosing spondylitis. (2, 3)

Psoriatic arthritis

Acute iritis can occur along with psoriatic arthritis, but iritis isn't associated with psoriasis without arthritis. HLA B-27 is present in 40-60% of the patients. (2)

Positive diagnosis

The positive diagnosis of iridocyclitis is easily determined, the biomicroscopical examination providing the majority of objective elements. It is important to note that affectation targets most commonly one eye, which has decreased visual acuity and peripheral congestion. The presence of retro-corneal precipitates is diagnosed as iritis. In some cases this disease is recurrent, the patient confirming the existence of previous flares. Along with the diagnosis of the disease (iridocyclitis), in the diagnosis should also be stated the clinical form of disease, and etiological diagnosis. Etiological diagnosis is difficult and requires a thorough medical history, various laboratory tests and a good interdisciplinary collaboration. (1, 2, 5)

Differential diagnosis

It is realized with endearment that develops from clinical point of view to red eye:

- *acute conjunctivitis*- is usually bilateral, congestion is predominantly in the bottom of the conjunctival sac and not in the peripheral sector, it is associated to conjunctival

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secretion, visual acuity is normal, pupil is free.

- *closed-angle glaucoma*- acute form of attack, the eye is red and very painful, general autonomous phenomena, such as nausea and vomiting are present. Objectively speaking, the anterior chamber of the eye is very small, almost peripherally nonexistent; the pupil is in average mydriasis areflexia, ocular tension is very high.
- *keratitis or corneal ulcers*- presents characteristic corneal changes for each form, instillation of the fluorescein or methylene blue highlighting corneal ulcers, keratitis or neglected corneal ulcers are accompanied by iritis. (1, 5, 6)

Complications and prognosis

Untreated iridocyclitis determines the extent of the inflammatory process to neighboring tissues, with the emergence of total uveitis. Goniosynechia favors secondary glaucoma development. Complicated cataract appears by nutritional disorders of the lens due to modified aqueous humor. Globe atrophy or phthisis may occur in recurrent, chronic forms. The prognosis is reserved especially in subacute and chronic forms; it can be improved by immediate presentation of patient by applying an early treatment. In acute forms, recovery may be obtained by restitutio ad integrum. (1, 2)

Treatment

Iridocyclitis treatment is etiological, pathogenic and symptomatic, local and general. Also a special attention should be given to complication treatment and sequela.

- *etiological treatment*- general etiological treatment consists of basic disease treatment, in this case, treatment of **anchilopoietic spondylitis** and psoriatic arthritis.
- *pathogenic treatment*- its aim is to reduce the inflammatory phenomena. Generally NSAIDs (Nonsteroidal anti-inflammatory drugs) or steroidal drugs are administered as corticoid therapy in severe forms. Mydriatics as subconjunctival injection or instillation are locally administered, breaking the **iridolen**-ticular synechia effect to dilate the pupil, thereby preventing the occurrence of complications.

To achieve mydriasis, atropine and adrenaline with parasimpaticolitic effect are used, both administered as instillations 3 times per day and subconjunctival injections daily.

Cortisone with subconjunctival injection or topical application is designed to reduce vessel wall permeability decreasing exudation.

- *symptomatic treatment*- generally- analgesics and anti-inflammatory nonsteroidal painkillers, heat applied locally, colored lens glasses to reduce photophobia and eye rest.
- complications and sequela treatment - secondary glaucoma treatment is medical, using various collyriums to reduce secretion of aqueous humor or surgery, postoperative results were generally weak.(2)

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