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Abstract: Uveitis represents the inflammation of the structures that make up the uveal tract: the iris, the ciliary body and the choroid, or of the adjacent ocular structures (the retina, the optic nerve, the vitreous, the sclera). The etiology is attributed, in most cases, to the autoimmune mechanisms. In terms of the location of the pathological processes, uvea can be divided into two portions: the anterior portion, irrigated by the ciliary arteries and the long posterior ciliary arteries; the posterior portion, irrigated by the posterior short ciliary arteries. The vascular arrangement explains the limitation of some inflammatory processes to one of the two territories. The existence of two vascular territories, one anterior (iridociliary) and one posterior (choroidal) explains the possibility of limited inflammation occurrence, either in the first territory or in the posterior one. Still, there are cases when both territories can be covered by an inflammation, either simultaneously or successively.

Cuvinte cheie: uveită, inflamație


INTRODUCTION

The classification of uveitis is the result of various research centres, aiming at standardizing some aspects of uveitis, establishing certain criteria for diagnosis and treatment, evolution and prognosis.

1. The classification according to the International Uveitis Study Group (IUSG-1987) is based on the anatomical location of the inflammation and it is the most used one (table no. 1).

Table no. 1. Classification of uveitis according to IUSG

<table>
<thead>
<tr>
<th>Anterior uveitis</th>
<th>Intermediate uveitis</th>
<th>Posterior uveitis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inflammation of the iris and / or pars plicata anterior ciliary bodies</td>
<td>Pars plana (posterior ciliary body and / or pars plana)</td>
<td>Choroid and retina</td>
</tr>
<tr>
<td>Iritis</td>
<td>Pars planitis</td>
<td>Diffuse multifocal choroiditis</td>
</tr>
<tr>
<td>Anterior cyclitis</td>
<td>Posterior cyclitis</td>
<td>Chorioretinitis</td>
</tr>
<tr>
<td>Irisocyclitis</td>
<td>Basal retinocchoroiditis</td>
<td>Neuroretinitis</td>
</tr>
<tr>
<td>Panuveitis</td>
<td>The inflammation of the anterior chamber, of the vitreous, retina and choroid.</td>
<td></td>
</tr>
</tbody>
</table>

2. Anatomical, etiological classification (O’Shea amended):
- Granulomatous, idiopathic; associated with HLA-B27;
- Juvenile idiopathic arthritis; glomerulonephritis; ankylosing spondylitis; psoriatic arthritis; herpes simplex; LES; leukemia; Reiter’s syndrome; anterior uveitis induced by drugs; Posner-Schlossman syndrome; Lyne’s disease; inflammatory bowel disease.
- Nongranulomatous (UANG): sarcoidosis; syphilis; TB; Behcet’s disease; ankylosing spondylitis; multiple sclerosis; Herpes simplex; systemic viral infections; fungal infections; Fuchs heterochromic iridocyclitis; persistent postoperative uveitis; traumatic uveitis; inflammatory bowel disease; Reiter’s syndrome; psoriatic arthritis.

3. Classification according to the International Uveitis Study Group (IUSG-2008) is based on the etiological criterion:
- Infectious (bacteria, fungi, viral, parasitory)
- Non-infectious: with known systemic association / without known systemic association
- Neoplasia masquerading, non-neoplastic

4. Classification according to IUSG-2008 takes into account the evolution criterion:
- Acute
- Chronic
- Recurrent

5. Classification according to IUSG -2008 in terms of nature:
- Pathologic - granulomatous; nongranulomatous
- Lesional - focal; multifocal; disseminated; diffuse

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CLINICAL ASPECTS

c. associated indices – synechiae; fibrin; nodules
d. configuration precipitates - fibrin; nodules; stellate or diffuse; peripheral

6. Other classification:
A. Anatomical classification (IUSG)
1. Anterior: iritis, anterior cyclitis, cyclitis.
2. Intermediate: posterior cyclitis, hialitis, basal retinochoroiditis.
4. Panuveitis represents the inflammation of the entire uveal tract

B. Etiological classification:
1. Idiopathic: 1. ocular manifestations; 1b. with ocular and systemic manifestations
2. Infections: 2a. with ocular manifestations; 2b. with ocular and systemic manifestations
3. Non-infectious: 3a. with ocular manifestations; 3b. with ocular and systemic manifestations

C. Clinical classification, according to onset and evolution length:
1. According to the evolution criterion:
   a. Acute, with a maximum period of 6 weeks, often bringing about recurrences;
   b. Subacute, with insidious onset, lasting for months or years with acute exacerbations;
   c. Chronic, they evolve with attenuated inflammatory phenomena, sometimes absent when examined with the naked eye, the evolution lasting months and years, being hard to distinguish between the non-progressive periods of time. There may occur lens and corneal opacities, occlusion or secondary glaucoma or pupillary seclusion. The patient comes to the doctor in a late phase, generally when decreased vision occurs.
2. According to the clinical manifestations: granulomatous, nongranulomatous
3. According to severity: medium, severe

D. Anatomical, pathological classification:
1. Anterior uveitis
   Ŷ granulomatous uveitis with insidious onset, long development, clinical picture with discrete manifestations, characterized by the presence of iris nodules, large corneal precipitates and nodulated lesions at the level of the fundus. No systemic associations: idiopathic; glaucomatous crisis; keratouveitis; u.a. induced by drugs; post-traumatic; post-laser; post-surgical.
   Ŷ nongranulomatous uveitis presenting an acute onset, short evolution but with strong symptoms, small corneal precipitates, diffuse lesions on fundus examination. With systemic associations: ankyllosing spondylitis; juvenile rheumatoid arthritis; Reiter’s syndrome; TB; leprosy; Behçet’s syndrome; sarcoidosis; diabetes; hypothyroidism etc.

2. Intermediate uveitis
   Idiopathic; toxoplasmosis; tuberculosis, sarcoidosis; syphilis; Borrelia; multiple sclerosis.

3. Posterior uveitis
   Ŷ No systemic associations: idiopathic; serpiginous chorioidopathy; posterior scleritis; post-surgically; myopia with fibrous postretinal syndrome
   Ŷ With systemic associations: sympathetic ophthalmitis; toxoplasmosis; sarcoidosis; TB; Behçet’s syndrome; syphilis; intraocular lymphoma; retinopathy associated to AIDS.

   Posterior uveitis may be suppurrative or exudative (non-suppurative).

   According to the lesions appearance, the exudative choroiditis may be:
   - Diffuse, in case of acute forms, exudative spots appear, of dirty-gray or yellow colour, poorly defined, which may outline the edematous appearance of the fundus, whereas the chronic forms may also present areas of choroidal atrophy.
   - In focal, with lesional appearance: acute lesions, with an appearance of prominent yellowish-white nodules of about 1 mm, which can merge, and scar lesions with the appearance of atrophic areas over which the retinal vessels pass.

   Ŷ Disseminated circumscribed, with focal disease in different developmental stages (different ages), or of the same age, with dissemination throughout the retinal surface.

   Of uttermost importance is the general clinical examination, as well as the specialty exams: dentistry, ORL, urogenital, dermatological and internal examinations, designed to detect the focal diseases. Note that an infection is not truly represented by an acute infectious process, such as a dental abscess or acute pustular tonsillitis. Focal diseases are represented by secluded processes, seemingly off in which the microbes are closed off and from where they are put into circulation, either germs of attenuated virulence or microbial toxins or microbial degradation products, which play the role of antigen triggers of the uveal process with immunologic mechanism. This is the manner in which dental granulomas, cryptic tonsils, chronic hypertrophic sinusitis etc. develop.

   Focal reactions can be triggered by a number of microbial agents, among which, we first mention the BK and streptococcus, then gonococcus, pseudomonas pneumococcus, bacillus coli, staphylococcus and pleuropneumonia group. A systematization of the germs incriminated in producing the granulomatous uveitis was made by Aronson (table no. 2).

   ### Table no. 2. Germs incriminated to produce uveitis

<table>
<thead>
<tr>
<th>No.</th>
<th>Pathogenic germs</th>
<th>Eye clinical appearance</th>
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<tbody>
<tr>
<td>1.</td>
<td>Treponema</td>
<td>Diffuse choroidal (“salt and pepper” appearance)</td>
</tr>
<tr>
<td>2.</td>
<td>Koch’s bacillus</td>
<td>Granulomatous iridocyclitis</td>
</tr>
<tr>
<td>3.</td>
<td>β-streptococcus</td>
<td>Exudative iridocyclitis</td>
</tr>
<tr>
<td>4.</td>
<td>Brucella</td>
<td>Exudative iridocyclitis</td>
</tr>
<tr>
<td>5.</td>
<td>Toxoplasmosis</td>
<td>Focal retinochoroiditis</td>
</tr>
<tr>
<td>6.</td>
<td>Histoplasmosis</td>
<td>Diffuse choroiditis with secondary macular damage</td>
</tr>
<tr>
<td>7.</td>
<td>Anaerobic</td>
<td>Macular lesion</td>
</tr>
<tr>
<td>8.</td>
<td>Leptospira</td>
<td>Exudative iridocyclitis</td>
</tr>
<tr>
<td>9.</td>
<td>Nematode</td>
<td>Fibroblast focal chorioretinitis</td>
</tr>
</tbody>
</table>

Clinical picture of endogenous uveitis

- Acute endogenous iridocyclitis presents a sudden and noisy symptomatology with paroxysmal onset and rapid evolution. In etiology, there are encountered infectocontagious diseases (measles, scarlet fever, chicken pox, typhoid fever, influenza), as well as tuberculosis, syphilis, chronic rheumatism, in whose evolution, recurrent acute iridocyclitis may occur. Their prognosis is favourable if the treatment is applied early, correctly and systemically, the aim being to obtain during the treatment a mydriasis as pronounced as possible.

- Chronic endogenous iridocyclitis have milder symptoms, the onset is insidious, with discrete reactive signs, a long term evolution (months, years), the periods of activity alternating with the quiet ones; they are accompanied by
ocular complications (secondary glaucoma, complicated cataracts), as well as the extension of the process in the entire uveal membrane.

- Their etiology is a subject of discussion, generally being brought about by the chronic inflammatory diseases (focal infection, rheumatism, viral infections, syphilis, tuberculosis), but in most cases, their etiology remains unknown. The prognosis is reserved, even in the mild forms due to the torpid evolution, complications frequently encountered. In the cases diagnosed late or due to the late presentation to the doctor, or in the case of an incorrect or inadequate treatment, the prognosis is unfavourable.

Anterior uveitis

The subjective symptoms of the acute anterior uveitis are: ocular or periorcular pain, intermittent, with onset in a few hours or days, with the exception of the traumatic cases that are aggravating due to strong light, redness, photophobia, excessive tearing, decreased visual acuity.

The subjective symptoms of the chronic anterior uveitis are: decreased visual acuity. There may be periods of remission and exacerbation with mild acute symptoms (e.g. juvenile idiopathic arthritis / juvenile rheumatoid arthritis).

Critical signs: cells and hyperemia in the anterior chamber, ciliary congestion, the presence of keratic precipitates and all of granulomatous entities.

Intermediate uveitis

Symptoms are represented by: decreased visual acuity, presence of painless cotton wool spots, mild photophobia or external inflammation. It is usually seen in people aged 15-40 years old and bilaterally.

Critical signs: vitreous cells; presence of exudative white deposits above the lower portion of the serrata and pars plana; groups of cells floating in the inferior vitreous; the younger patients may experience bleeding in the vitreous.

Other signs: peripheral neovascularisation; mild inflammation of the anterior chamber; posterior subcapsular cataract; secondary glaucoma; retinal detachment.

Posterior uveitis

Subjective symptoms: blurred vision; myodesopsia; pain, hyperemia and photophobia are usually absent except for the case when the inflammation exists in the anterior chamber.

Clinical signs: cells in the anterior and/or posterior chamber; blurred iris; retinal or choroidal inflammatory lesions; vasculitis.

Other signs: inflammatory signs of the anterior segment.

REFERENCES