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A Review Article on Uveitis- Importance of History Taking and Clinical Work-Up

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ABSTRACT

Uveitis is defined as the inflammation of the iris, ciliary body and/or choroid that comprises the uveal tissue. The complications caused by uveitis are many and can be potentially sight threatening. Underlying systemic diseases can manifest as uveitis initially. Hence an important history taking and thorough clinical examination are pre requisites for appropriately managing uveitis and preventing complications from uveitis.

Key words: Uveitis, Systemic diseases, Ciliary body

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MINI REVIEW

Uveitis is defined as the inflammation of the uveal tissue in the eye that comprises of iris, ciliary body and choroid. It occurs due to various infectious and non-infectious etiologies. Though the inflammatory process mainly affects the uvea, it consequently damages the vitreous, retina and optic nerve head as well, if left untreated. In many instances, uveitis is an initial manifestation of a systemic disease occurring elsewhere in the body. This proves to be a challenge to the treating ophthalmologist in reaching the correct diagnosis. Thus, a thorough knowledge of all the uveitic entities is necessary to perform appropriate ocular and systemic examinations.

A detailed and elaborate history is necessary to reach a correct diagnosis and is the first step in the clinical workup of uveitis. Family history helps when dealing with diseases like tuberculosis. Systemic and medical history is essential to identify systemic associations with uveitis. Social history of the patient helps in identifying possible endemic diseases or Acquired Immunodeficiency Syndrome (AIDS) [1].

The various variables that needs attention while taking history includes:

- Patient's demographic details: Patient particulars like name, age, gender, address, occupation and socio – economic status of the patient.
- Ocular complaints: Onset, duration, progression, laterality, severity and course of the symptoms.
- Systemic and treatment history: details on chronic systemic illnesses and treatment taken including name of the drug, dose and frequency.
- Details on any injury/trauma in the past, surgeries or exposure to risk factors.

Importance of age in uveitis: Various diseases have a higher incidence in certain age groups. For instance, Toxocariasis and Juvenile Rheumatoid Arthritis are common in children. Fuch's uveitis and Behcets are common among young adults. Diseases like Herpes Zoster Ophthalmicus, tuberculosis and leprosy are common in the elderly age group.

Gender: Some diseases are common in either men or women. For example, diseases like ankylosing spondylitis, Behcet's and Reiters syndrome are common in men. Rheumatoid arthritis is seen more in women.

Race: Sarcoidosis is common in Blacks. Vogt Koyanagi Harada's syndrome is seen in Orientels.

Systemic history: Diabetic and immunosuppressed patients are at a higher risk of developing endophthalmitis.

Any extraocular disease should be looked for as this may add importance in supporting the diagnosis by history and ocular examination. A careful physical examination must be done to clinically suspect associated systemic diseases. This will help the treating ophthalmologist in ordering necessary investigations for a correct diagnosis. (Table 1)

Table 1: A few signs correlating with systemic diseases are given below.

Hypopigmentation of skin	Leprosy, VKH syndrome
Loss of hair	VKH syndrome , SLE, Syphilis
Poliosis	VKH, Sympathtic ophthalmia
Nail abnormalities	Vasculitis, Psoriatic arthritis
Oral and genital ulcers	Behcet disease, Syphilis, Reiter's syndrome
Urethral discharge	Gonococcal urethritis, Herpes simplex, syphilis
Nephritis	Wegener's granulomatosi, Sarcoidosis, Tuberculosis
Fever	Tuberculosis, Leptospirosis
Neuropathy	Leprosy, Herpes Zoster Ophthalmicus, Multiple sclerosis

Ocular symptomatology

In anterior uveitis, where the inflammation is predominantly in the iris upto to the pars plicata of the ciliary body, redness, pain and photophobia are the usual symptoms. In intermediate uveitis (pars planitis) and posterior uveitis (mainly choroiditis), presence of floaters is the common symptom. This may or may not be associated with defective vision. Painful restriction of ocular movements is a complaint in patients with orbital inflammatory diseases. Anterior segment examination is performed under bright light. Forniceal congestion is seen in conjunctivitis or episcleritis. However in uveitis, congestion is circumcorneal, in the perilimbal area. Examination of the forehead is essential. A vesicle on the forehead is seen in HZO, Poliosis in VKH syndrome and madarosis in leprosy. Conjunctival granulomas are seen in sarcoidosis. In Cornea, dendritic keratitis indicates viral etiology, exposure and neurotrophic keratitis is seen in leprosy. Pupillary abnormalities are to noted. Relative Afferent Pupillary Defect is seen in Optic atrophy due to chronic uveitis, sectoral iris atrophy is seen in herpetic uveitis, Argyll Robertson pupil is seen in neurosyphilis. Gonioscopy is essential in conditions like sarcoidosis (peripheral anterior synechiae, iris nodules), traumatic uveitis (foreign body). Slit lamp examination helps in noting the presence of keratic precipitates, anterior chamber reaction and in differentiating between granulomatous and non-granulomatous uveitis. Examination of the iris includes presence or absence of posterior synechiae, seclusion-pupillae, iris atrophy (seen in herpetic uveitis, anterior segment ischaemia, Hansen's disease). Iris nodules seen are Koeppe's nodules (at the papillary margin) and Busaca's nodules (on the surface of iris). Heterochromia iridis is seen in Fuch's heterochromic iridocyclitis [2].

The most common type of cataract in uveitis is posterior subcapsular cataract. Anterior lens opacities (glaukomflecken) indicate acute uveitic glaucoma [3]. Elevated IOP is seen in conditions like Herpetic uveitis, Fuch's herpetic iridocyclitis and Posner-Schlossman's syndrome. Indirect Ophthalmoscopy is essential in detecting choroidal hemorrhage and tumours. Vitreous shows vitritis in uveitis. Snowball opacities appear due to the accumulation of inflammatory cells. Examination of the pars plana and peripheral part of retina is done by scleral depression. Retinitis is usually associated with hemorrhage. Retinal vasculitis involves arteries or veins. Choroidal inflammation is seen in tuberculosis and sarcoidosis. Sarcoidosis and leukaemia can cause optic disc infiltration causind a papillitis like picture. Optic neuritis can occur in multiple sclerosis [4]. Changes in macula include, Cystoid macular edema, macular hole, exudative macular detachment. A comprehensive and detailed history taking is essential in the diagnosis and management of uveitis [5]. It helps the treating Ophthalmologist in prescribing the necessary investigations to diagnose the underlying systemic disease as well.

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