

CLASSIFICATION OF UVEITIS

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Need for classification for any disorder/ disease arises because it enhances precision and comparability of clinical research from different centres, moreover it also helps in development of complete picture of course of disease and also aids in assessing the response to the treatment. Uveitis may be classified in numerous ways, according to several systems and multiple descriptors.

INTERNATIONAL UVEITIS STUDY GROUP (IUSG) CLASSIFICATION (1987)

This is the most widely used classification and was given by this committee in the year 1987. It is based on the anatomical location of the disease.

ANATOMICAL CLASSIFICATION OF UVEITIS (SUN Working Group Classification)

(i) Anterior

- Iritis
- Anterior cyclitis
- Iridocyclitis

(ii) Intermediate uveitis (formerly k/a pars planitis, posterior cyclitis, hyalitis, basal peripheral uveitis)

(iii) Posterior uveitis

- focal, multifocal or diffuse choroiditis, chorioretinitis
- retinochoroiditis or neurouveitis

(iv) Panuveitis

In 2005, the Standardization of Uveitis Nomenclature (SUN) Working Group standardized the methods for reporting clinical data for uveitis under the headings of diagnostic terminology, inflammation grading, aetiology and outcome measures. Anatomical classification of uveitis based on criteria defined by the International Uveitis Study Group (IUSG) was retained. A standardized grading schema for aspects of intraocular inflammation, that is, anterior chamber cells, anterior chamber flare, and vitreous haze, was developed.¹ Standardized definitions of outcomes, including reporting visual acuity outcomes, were approved.

Detailed clinical guidelines on anterior segment and posterior segment intraocular inflammation were also published by The International Ocular Inflammation Society (IOIS).^{1,2}

CLINICAL CLASSIFICATION OF UVEITIS

The anatomical classification was further refined by SUN group by defining descriptions based on clinical

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onset, duration and course. This came to be known as the **CLINICAL CLASSIFICATION OF UVEITIS**

On the basis of **onset**:-

- Sudden
- Insidious

On the basis of **duration**:-

- Limited (duration not more than 3 months)
- Persistent (duration more than 3 months)

On the basis of **course** of Uveitis:-

- Acute (sudden onset and limited duration)
- Recurrent (repeated episodes of uveitis separated by periods of inactivity lasting at least 3 months without treatment)
- Chronic (persistent uveitis with relapse within 3 months after discontinuation of treatment)

INTERNATIONAL UVEITIS STUDY GROUP (IUSG) CLASSIFICATION (2008)

IUSG in 2008 proposed a newer classification based on the etiology of the disease. Three main categories were defined. They were:-

- Infectious (bacterial, viral, fungal, parasitic)
- Non-infectious (known systemic associations, no known systemic associations)
- Masquerade (neoplastic, non-neoplastic)

Other etiologies that have been included are

- Traumatic (surgical, non-surgical)
- Toxic (chemical, drug induced)

Few other classifications have also been proposed. They were

MORPHOLOGICAL CLASSIFICATION

This classification was given by Alan Churchill Woods hence also came to be known as Woods classification. This classification is based on the clinical examination of the patient of uveitis.

Two categories were proposed in this group

- Granulomatous uveitis
- Non - granulomatous uveitis

Features	GU	NGU
Onset	insidious prolonged	but acute
Laterality	Bilateral	unilateral
Pain	none/slight	Marked
Photophobia	minimal	Marked
Recurrence	occasional	Common
Blurred vision	marked	moderate
Inflammation	mild	marked
KPs	Mutton fat greasy	Fine, dispersed
Iris nodules	seen	Not seen
Synechiae	Broad based, thick	Fine, filamentous
Post. involvement	segment Common	Generally absent

CLASSIFICATION PARAMETERS

For the formulation of complete diagnosis following parameters must be kept in mind

- **Patient demographics** (Age, sex, sexual orientation, race, geographic location, travel history, social habits, and occupation)
- **Location of the inflammatory process** (Anterior, intermediate, posterior and panuveitis)
- **Duration** (limited, persistent), **onset** (sudden, insidious), and **course of inflammation** (acute, recurrent and chronic)
- **Character of the inflammation** (granulomatous, non-granulomatous) including the nature of the inflammatory cells and deposits, distribution of lesions, and the presence of nodules, fibrin or synechiae
- **Etiology of the inflammation** (autoimmune, infectious, neoplasm, trauma, toxic, systemic diseases, idiopathic)

GRADING OF UVEITIS

The SUN Working Group standardized the grading of anterior chamber cells and flare to achieve better compatibility between data from different groups and different studies.

For anterior chamber cells, in a field size of 1X1-mm slit beam, the following grades were described:

Grade 0	-	< 1 cell
Grade 0.5+	-	1-5 cells
Grade 1+	-	6-15 cells
Grade 2+	-	16-25 cells
Grade 3+	-	26-50 cells
Grade 4+	-	>50 cells

The presence of hypopyon was recorded separately.

The grading for anterior chamber flare was standardized as follows⁴:

Grade 0	-	none
Grade 1+	-	faint (barely visible)
Grade 2+	-	moderate (iris and lens details clear)
Grade 3+	-	marked (iris and lens details hazy)
Grade 4+	-	intense (fibrin or plastic aqueous)

SUN working group also classified the activity of anterior uveitis as⁴:

Inactive	grade 0 cells in anterior chamber
Improved activity	2-step decrease in the level of inflammation or a decrease to grade 0
Worsening activity	2-step increase in the level of inflammation or an increase from grade 3+ to 4+
Remission	inactive disease for at least 3 months after discontinuation of treatment

Vitreous inflammatory cells are graded as follows⁴:

Grade 0	-	no cells
Grade 0.5+	-	1-10 cells
Grade 1+	-	10-20 cells
Grade 2+	-	20-30 cells
Grade 3+	-	30-100 cells
Grade 4+	-	>100 cells

Vitreous haze is graded as follows⁵:

Grade 0	-	no haze
Trace	-	slight blurring of optic disc margin
Grade 1+	-	slightly blurred optic disc and vessels
Grade 2+	-	moderately blurred optic disc and vessels
Grade 3+	-	optic disc blurry but visible
Grade 4+	-	optic disc not visible

REFERENCES

- BenEzra D, Ohno S, Secchi AG, et al. *Anterior Segment Intraocular Inflammation Guidelines*. London: Martin Dunitz; 2000.
- Forester JV, Okada AA, BenEzra D, et al. *Posterior Segment Intraocular Inflammation Guidelines*. The Hague: Kugler; 1998.
- Madow B, Galor A, Feuer WJ, Altaweel MM, Davis JL. Validation of a photographic vitreous haze grading technique for clinical trials in uveitis. *Am J Ophthalmol*. Aug 2011;152(2):170-176.e1.
- Jabs DA, Nussenblatt RB, Rosenbaum JT. Standardization of uveitis nomenclature for reporting clinical data. Results of the First International Workshop. *Am J Ophthalmol*. Sep 2005;140(3):509-16.
- Nussenblatt RB, Palestine AG, Chan CC, et al., Standardization of vitreal inflammatory activity in intermediate and posterior uveitis, *Ophthalmology*, 1985;92:467-71.