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SHORT COMMUNICATION OPHTHALMIC DYES

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Abstract: *This paper describes about various Ophthalmic Dyes, its properties and its usage.*

Keywords: *Ophthalmic Dyes*

INTRODUCTION:

Unlike other ocular drugs, ophthalmic dye is not able to penetrate the cornea, because molecular size of the ophthalmic dye is greater than 4 A. That's why it can stain the cornea.

Name of Ophthalmic Dyes are as follows:

Fluorescein – Na

[1]. Fluorexon
[2]. Rose Bengal
[3]. Lissamine Green
[4]. Indocyanine Green
[5]. Trypan Blue

A. Fluorescein – Na

It can stain Epithelial defect but not able to stain dead cells/ mucus strain. This dye is always used with Cobalt blue filter. The main characteristic of this dye is, whatever its wavelength is, when it is exposed into the light then it can show more wavelength compared to its original wavelength. Eg. Its wavelength is (420-490) nm and when exposed in sunlight it shows (520-530) nm. In powder form, this dye is orange in colour and in solution form, yellow in colour. Its molecular weight is 376.27. It can stain "Soft Contact Lens" so this dye is contraindicated in Soft Contact Lens fitting.

Uses:

[1]. To check Tear film Break up Time
[2]. Corneal Epithelial Defect Detection
[3]. Applanation Tonometry
[4]. Fitting of Rigid Gas Permeable Contact Lens
[5]. Retinal Angiography
[6]. Vitreous Fluorophotometry Fundus Angiography
[7]. It is available in solution and strip form. Solution (2%) and Strip (1, 9, 0.6) mg

B. Fluorexon

This dye can be used during Soft Contact Lens fitting. Its molecular weight is just double tentatively when compared to Fluorescein – Na

C. Rose Bengal

It is brilliant red in colour. Mainly it can stain the dead cell (Devitalized cell) and Mucus strand. It can be able to diagnose Corneal Abrasion, Foreign Body etc.

D. Indocyanine Green

It contains 5% Sodium Iodide. When Rose Bengal Dye is not available then, Indocyanine Dye is used.

E. Trypan Blue

It can stain anterior capsule of the Crystalline lens.

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