International Journal of Current Research and Review
DOI: http://dx.doi.org/10.31782/IJCRR.2021.SP127

Scopus

Review Article

The Red Eye—More Than Meets the Eye

Lim LT, Ting SL

Department of Ophthalmology, Faculty of Medicine and Health Sciences, Universiti Malaysia Sarawak, Malaysia.

IJCRR
Section: Healthcare
ISI Impact Factor (2019-20): 1.628
IC Value (2019): 90.81
SJIF (2020) = 7.893

ABSTRACT

The red eye is one of the most common eye presentations to health care centres. The red-eye can be divided into painless and painful. The painless red eye includes bacterial, viral, allergic conjunctivitis, dry eyes, episcleritis and subconjunctival haemorrhage. Meanwhile, the painful red eye can be more challenging, as some involve ophthalmic emergencies which are acute angle-closure attack, acute anterior uveitis, scleritis, orbital cellulitis, severe keratitis and severe thyroid eye disease (TED). Some red eye cases are simple and can be managed as an outpatient. Unresolved and complicated red-eye cases require ophthalmologist referral and further investigations on time. Painful red eye may be more than meets the eye, requiring referral to the ophthalmologists.

Key Words: Painful, Painless, Red eye, Systematic Approach, Emergency

INTRODUCTION

The red-eye is one of the most common eye presentations to the general practitioners (GPs) and polyclinics, and occasionally to the Accident and Emergency (A&E) department. However, some red-eye symptom requires urgent treatment and further investigations, depending on the presenting history. Hence, history taking in such cases are of paramount importance. Sometimes the red-eye may just be the tip of the iceberg, associated with more sinister systemic conditions.[1,2]

In this Continuing Medical Education (CME) article, we shall be emphasizing on the more important and common diseases not to be missed as well as its management. It is envisaged that after reading this article, the audience will be more confident in managing common red-eye cases, knowing and identifying the ocular emergencies that require urgent referrals to the ophthalmologists. Some red eye may have underlying associated systemic problems which demand further investigations and possibly joint management with the relevant specialties.[3-5]

The Red Eye

The red eye can be broadly divided into painless and painful/uncomfortable (**Figure 1**). Painless is generally less worrying compared to painful red eye. Hence, the history taking is very important in the management of the red eye. We need to ascertain if the pain is sharp or dull. Sharp pain is suggestive of pathologies affecting the eye surface whereas dull pain advocates pathologies deeper in the eye. Next, we need to ask the patient for any history of blurry vision, the colour and texture of the eye discharge (if any), the onset and duration. The contact lens wear, systemic conditions like hypertension, diabetes, flu, autoimmune diseases, and also personal history such as smoking, occupation and patients' environment are crucial.[2-5] The common differentials diagnosis for painless red eye includes bacterial, viral, allergic conjunctivitis, dry eyes, episcleritis and subconjunctival haemorrhage.

The approach to the painful red eye can be more challenging, as some involve ophthalmic emergencies. The ophthalmic emergencies that should not be missed include acute angle-closure attack (previously known as acute angle-closure glaucoma), acute anterior uveitis (iritis), scleritis, orbital cellulitis, severe keratitis and severe thyroid eye disease (TED). For acute angle-closure attack, it is usually sudden, dull painful red eye, accompanied with headaches, nausea and occasional vomiting, blurry vision and seeing haloes of light through the affected eye. Clinically, observation can reveal hazy cornea and mid-dilated oval-shaped pupil that poorly

Corresponding Author:
Siew Leng Ting, Department of Ophthalmology, Faculty of Medicine and Health Sciences, Universiti Malaysia Sarawak 94300 Kota Samarahan, Malaysia; Email: slting@unimas.my

ISSN: 2231-2196 (Print) **ISSN:** 0975-5241 (Online)

Received: 22.09.2020 **Revised:** 24.10.2020 **Accepted:** 26.11.2020 **Published:** 23.02.2021