

Case Study of Conjunctivitis: A Comprehensive Review

Pathan Huda Vahid¹, Ms Darshana Santosh Varma²

¹Student, SMBT Institute of Diploma in Pharmacy affiliated to MSBTE

²Lecturer, SMBT Institute of Diploma in Pharmacy affiliated to MSBTE

Abstract

Eye flu, commonly known as conjunctivitis, is an infectious condition affecting the inner surface of the eyelids and the outermost layer of the eye. It is characterized by redness, itching, and discharge. Viral or bacterial agents, as well as allergens, can trigger this inflammation. While typically not severe it can spread by direct or indirect touch and is very contagious. Proper hygiene, such as frequent handwashing and avoiding touching the eyes, helps prevent transmission. It is advised to consult a healthcare provider in order to receive an accurate diagnosis and suitable therapy.

Keywords- Eye Flu, Viral Conjunctivitis, Symptoms, Management, Case Paper.

Introduction

Eye flu, or conjunctivitis, serves as a pervasive ocular concern, impacting individuals of all ages. The inner eyelids and surface of the eye are covered in a protective layer called the conjunctiva, which becomes inflamed and causes the disorder. Its etiology spans viral and bacterial infections, as well as allergic reactions, with each source presenting distinct manifestations. The hallmark symptoms encompass redness, irritation, and discharge, creating a discomforting experience for those affected. Due to its contagious nature, understanding the causes, adopting preventive practices, and seeking timely medical advice become essential components in managing and mitigating the impact of eye flu on ocular health.[1] The swelling and inflammation of the conjunctival tissue are the hallmarks of conjunctivitis. More than 80% of all acute cases of conjunctivitis are reported to be diagnosed by non-ophthalmologists physicians including physician specialized in the diagnosis (internists) , family medicine physicians, and nurse practitioners.[2] Conjunctivitis, sometimes known as "pink eye," is an infection or inflammation of the conjunctiva. The thin mucous membrane known as the conjunctiva covers the globe's surface, the inside of the eyelids, and the limbus, which is the point where the cornea and sclera converge. Conjunctivitis is usually classified according to its etiology, which can be generally divided into infectious and non-infectious causes. The majority of pediatric cases of conjunctivitis are caused by viruses or bacteria. Non-infectious conjunctivitis includes allergic conjunctivitis as well as conjunctivitis due to foreign bodies, environmental causes, or contact lenses. [3]



Fig 1. Watery eyes on both sides are a symptom of adenoviral conjunctivitis.

Etiology of Eye Flu: Unraveling the Origins of Conjunctivitis

Conjunctivitis, also referred to as pink eye or eye flu, is characterized by inflammation of the conjunctiva, a thin membrane that covers the surface of the eye. This inflammation arises from diverse etiological factors, each contributing to the distinctive forms of conjunctivitis: viral, bacterial, and allergic. They are following factor responsible for conjunctivites are as follow [4-7]–

Sr no	Etiopathogenesis	Example	Symptom
1	Viral Etiology	Adenoviruses, herpes simplex virus, enteroviruses	Redness, itching and tearing of eye
2	Bacterial Etiology	- Haemophilus influenzae, Streptococcus pneumoniae (gram positive), and Staphylococcus aureus	Redness in one or both eyes, Itchness
3	Etiology of Allergies	Pollen, dust mites	high fever, itching
4	Environmental Elements	unhygienic living circumstances, intimate contact with infected people, and viral and bacterial conjunctivitis.	Watery eye

Depending on the reason, there are various forms of conjunctivitis:

- Viral Conjunctivitis:** Caused by viruses, such as adenovirus. It's highly contagious and often associated with symptoms like redness, watery discharge, and discomfort.[9]
- Bacterial Conjunctivitis:** Caused by microorganisms like Streptococcus pneumoniae and Staphylococcus aureus. Symptoms may include redness, pus-like discharge, and crusting of the eyelids. [10]



Fig 2- ALLERGIC CONJUNCTIVITIS

- Allergic Conjunctivitis:** Triggered by allergens like pollen, pet dander, or dust mites. Symptoms often include itching, redness, and watery discharge. [11]
- Chemical Conjunctivitis:** Caused by exposure to irritants like chlorine in swimming pools or harsh chemicals. Symptoms can range from mild redness and irritation to severe pain and blurred vision.[12]

Signs and Symptoms:

Conjunctivitis, commonly known as pink eye, can present with symptoms such as redness in the white of swelling of the eyes, increased weeping or discharge, stinging or burning feeling, and sensitivity to light. Depending on the cause (viral, bacterial, or allergic), symptoms may vary slightly. For an accurate diagnosis and course of treatment, it is advisable to speak with a healthcare provider if you think you may have conjunctivitis.[13]

SIGN AND SYMPTOMS OF CONJUNCTIVITIS**Treatment:**

The cornerstone of treatment for many types of allergies, including allergic conjunctivitis, is avoiding the allergens. Artificial tears have the ability to dilute different allergens, flood the ocular surface, and remove a multitude of inflammatory mediators, all of which serve as barriers. The treatment options for allergic conjunctivitis including lubricant eye drops, anti-histamines, and mast cell stabilizer. [14][15] Many studies have demonstrated the superiority of topical antihistamines and mast cell stabilizer compared of placebo (treatment that is real) in alleviating the symptoms of allergic conjunctivitis; in addition, it has been demonstrated that antihistamines are more strong that mast cell stabilizer for providing short-term relief. [16][17] A number of eye drop preparations, such as olopatadine, ketotifen, azelastin, and epinastine, with dual action (antihistamines and mast cell stabilizing properties) have been brought to market recently.

Amongst the different types of conjunctivitis for our review we had selected viral conjunctivities for case study on the basis of current pandemic cases occur in year 2023 in which most probably people are suffering from viral conjunctivitis

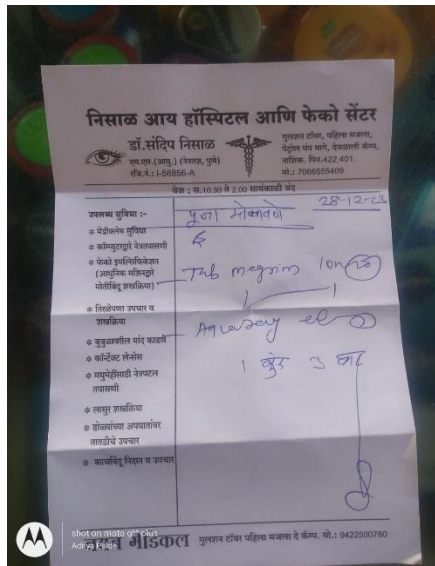
Methodology**Collection of case paper**

The 10-case paper were collected from Nashik region from pharmacy and small clinic and they are ekta eye hospital and laser centre, nasal eye hospital and fako centre, and Nashik Pharmacy Point.

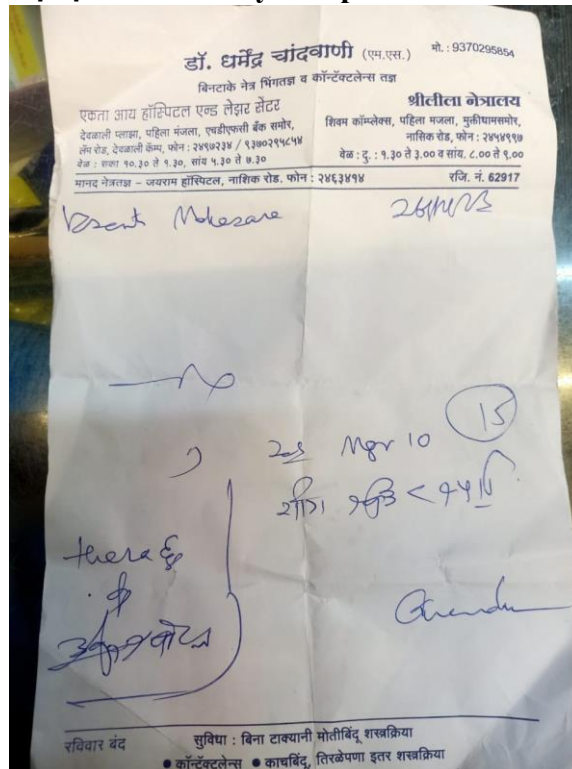
Analysing report

After collected the case paper the data as been analyse which drug has been prescribed mostly by doctor. amongst the 10-case paper mostly drug prescribe by doctor for conjunctivitis are Ceflox dee, Chloramphenicol, antihistamine and Mast cell stabilizer. These drug most probably used in type of viral conjunctivitis. Since recently viral conjunctivitis spread in population and they are infected

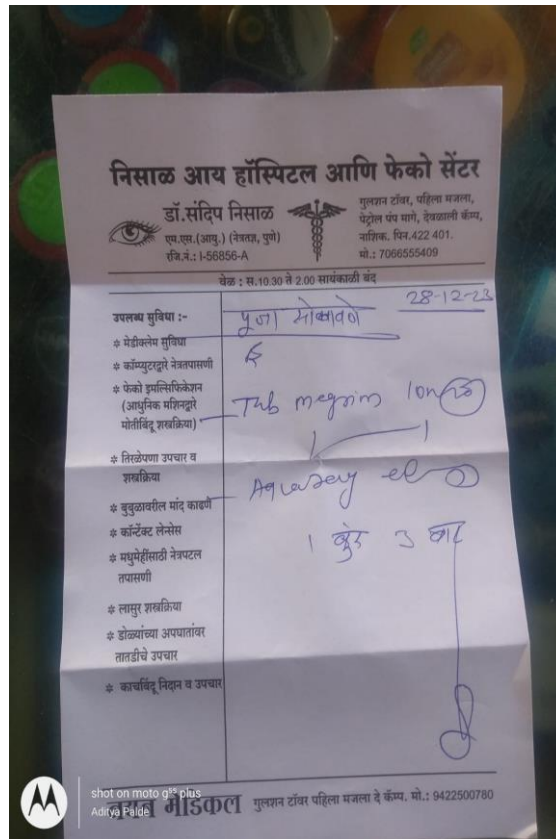
Case Paper:



case paper 1- nasal eye hospital and fako centre,



case paper 2- are ekta eye hospital and laser centre



case paper 3- Nashik pharmacy Point

Observation

Sr no	Drug prescribed	Number of case paper (10)
1	Ceflox dee	6
2	Chloramphenicol	2
3	Antihistamine	1
4	Mast cell stabilizer	1

Result and Discussion

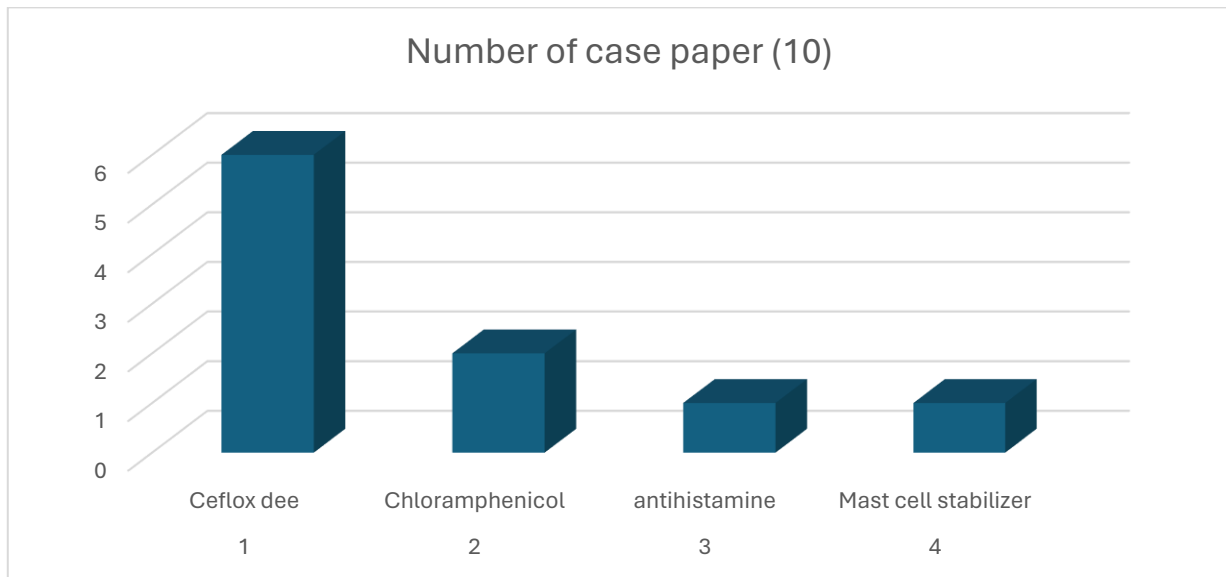


Fig 3– Graph of prescribed drugs

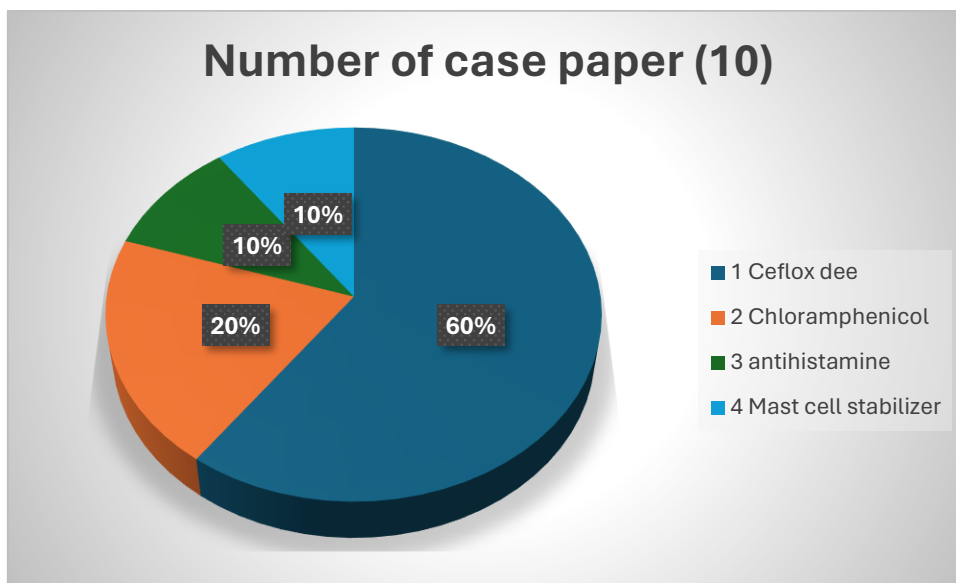


Fig 4 – Percentage of prescribe drugs

As per above result the most probably drug prescribe by drug in viral conjunctivitis are Ceflox dee , because this drug showing less side effect and good therapeutic effect as compared to other 3 drug chloramphenicol, antihistamine and mast cell stabilizer. The 2nd drug most probably prescribe is chloramphenicol. about 60% of ceflox dee are prescribe and 20% of Chloramphenicol, 10% of antihistamine and 10% of mast cell stabilizer

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