



Research Article

Prevalence of Conjunctivitis in Patients Referred to Tertiary Eye Hospital, Raipur

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Received Date: April 5, 2021

Publication Date: April 13, 2021

Abstract

Background: The study aims to investigate the prevalence of conjunctivitis in patients who referred to tertiary eye hospital Raipur. **Material & methods:** This was a prospective cross-sectional observational community-based study involving 150 patients from “Shri Ganesh Vinayak Eye Hospital, Raipur”. **Results:** Total number of subjects with conjunctivitis screened was 150. Out of 150 subjects, 62 were children. The cases of conjunctivitis further categorized based on etiology prevalence of allergic conjunctivitis was 94 (62.66%), the prevalence of viral conjunctivitis was 36 (24%), and prevalence of bacterial conjunctivitis was 20 (13.33%). **Conclusion:** The present study highlights that allergic conjunctivitis has a high among the people age is lacking amongst the affected populations. The sign, symptoms and considerations of the background of conjunctivitis as well as the therapeutic procedures should be assessed.

Keywords: Conjunctivitis, Allergic, Bacterial, Viral, Redness, Symptom, Diagnosis, Treatment, Prevalence.

Introduction

Conjunctivitis, or pink eye, is an irritation or inflammation of the conjunctiva, which covers the white part of the eyeball. It can be caused by allergies or bacterial or viral infections. Conjunctivitis can be extremely contagious and is spread by contact with eye secretions from anyone infected.



Symptoms include redness, itching and tearing of the eyes. It can also lead to discharge or crusting around the eyes.

It's important to stop wearing contact lenses whilst affected by conjunctivitis. It often resolves on its own, but treatment can speed the recovery process. Allergic conjunctivitis can be treated with antihistamines. Bacterial conjunctivitis can be treated with antibiotic eye drops.

Material & Methods

Participants

This was a prospective cross-sectional observational community-based study involving 150 peoples from 'Shri Ganesh Vinayak Eye Hospital', Raipur, or 3 basic schools participate in the study. The duration of the study was from August 2018 to March 2019.

After history taking, subjects underwent a test; visual acuity, objective refraction, anterior and posterior segments examination with a slit-lamp and a direct ophthalmoscope respectively.

Inclusion criteria:-

- Babies (0-2 years): common
- Toddlers (3-5 years): common
- Children (6-13 years): common
- Teenagers (14-18): common
- Young adults (19-40 years): very common
- Adults (41-60): common
- Seniors (60+): common
- Discharge (mucous or purulent)
- Hyperemia
- Chemosis
- Watering
- Photophobia
- Pain
- Irritation

Exclusion criteria:-

- Age older than 75 years.
- Pre-existing symptoms for longer than 7 days.
- Use of systemic or local antibiotics within the previous two weeks.



- Keratitis.
- The recent loss of vision.
- Eye trauma.

Results

Data collection & statistical analysis

The total number of subjects with conjunctivitis screened was 150. The selected sample had children in the age group of 1-15 years, teenagers in 16-25 years, adults in 26-50 years, and elders were 50-75 years. Out of the 150 subjects, 62 were children. The cases of conjunctivitis further categorized based on etiology prevalence of allergy conjunctivitis was 62.66%, and bacterial conjunctivitis was 24%. The prevalence of viral conjunctivitis was 13.33%. People with symptoms of conjunctivitis for the first time were 55.33%. The percentage of males affected by conjunctivitis was 54.66%. The percentage of females affected by conjunctivitis was 45.33%. Dust (35%) was the most common precipitating factor. The young group had a higher prevalence of diagnosed allergic conjunctivitis. Sensitization to mites, food, and pollen was associated with a higher prevalence of allergic conditions. Over 95% of patients were given a topical treatment.

Table 1: Age and gender distribution of participants (n=150).

S. No.	Category	Age group	No. of patients	Percentage
1	Children	1-15	62	41.33%
2	Teenagers	16-25	35	23.33%
3	Adults	26-50	39	26%
4	Elders	50-75	14	9.33%
5	Male	1-80	82	54.66%
6	Female	1-65	68	45.33%
7	Allergic conjunctivitis	1-30	94	62.66%
8	Viral conjunctivitis	1-50	36	24%
9	Bacterial conjunctivitis	25-60	20	13.33%



Table 2: Distribution of major symptoms and signs of Conjunctivitis.

Symptoms	Frequency (%)
Clear Mucinous Discharge	17.9%
Photophobia	26.7%
Tearing	53.3%
Grittiness	61.5%
Ropy/Stringy/Mucinous Discharge	64.3%
Redness	77.2%
Itching	100%

Figure 1: Distribution of conjunctivitis among the study populations

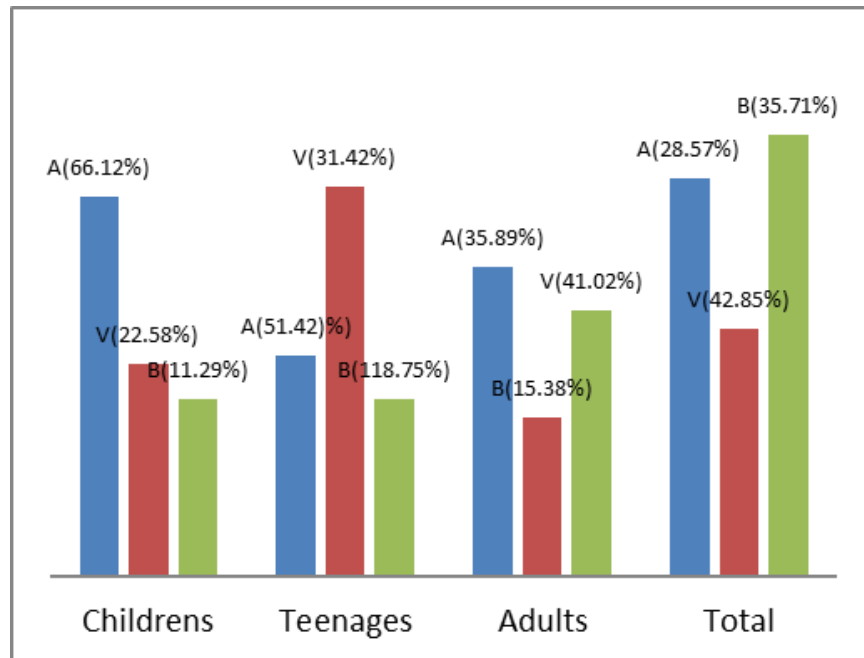
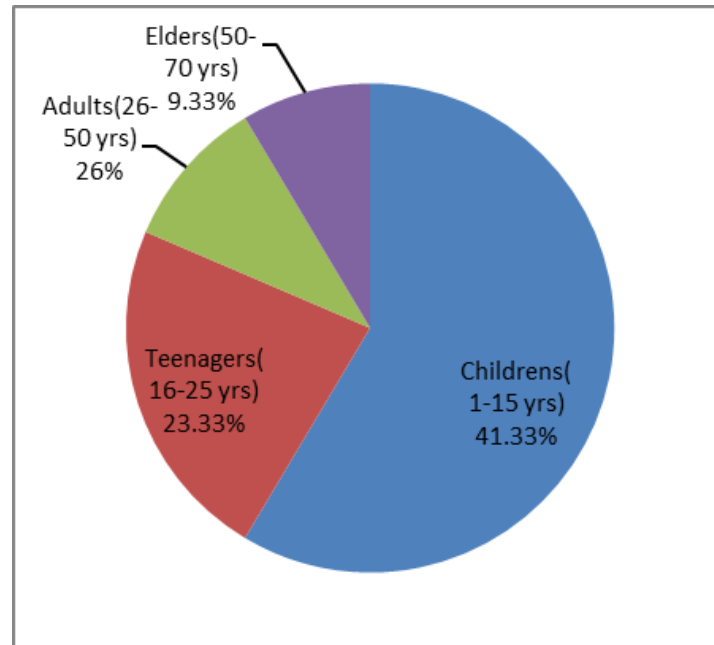


Figure 2: Distribution of conjunctivitis among the various age groups.



Discussion

This study emphasized that the prevalence of conjunctivitis in hospital patients setting than in community-based ones. Therefore, the current community-based cross-sectional study had the purpose of determining the prevalence of conjunctivitis among the patients in Shri Ganesh Vinayak Eye Hospital, Raipur. The prevalence of allergic conjunctivitis was found (62.66%) out of 150 patients. However, this is somewhat higher when compared to previous hospital-based studies. Rukas-Kivioja et al. found the prevalence of allergy conjunctivitis to be (62%). Meanwhile, in their community-based studies among school children Kumah et al. and Abah et al. found the prevalence of allergic conjunctivitis to be 12.1% and 7.3% respectively. The higher prevalence of allergic conjunctivitis in the study is probably because of its timing in the dry season (November to March) where there is usually dust and pollen in the air.

The term viral conjunctivitis is an inclusive term that encompasses different clinical entities based on the assumption. The prevalence of viral conjunctivitis was found (24%) out of 150 patients. Epidemiology studies have confirmed exposures to particulate matter (air pollutants) as a contribution to viral conjunctivitis, more so when the conjunctiva is in direct contact with the atmosphere.

Bacterial or viral conjunctivitis although self-limiting has a stigma attached to it: those affected with “pink eye” are barred from contact with others. The prevalence of viral conjunctivitis was found (13.33%)



out of 150 patients. In 2007 study published by Patel and colleagues demonstrating a similar incidence and same causative organisms in bacterial conjunctivitis as shown by Gigliotti, Weiss, and Isenberg. Looking at 111 patients seen in the emergency department, the study determined that 78% of cases were of bacteria identified were influenza, pneumonia and aureus.

Conclusion

Conjunctivitis has a high prevalence among people age. Identification of patients and their appropriate treatment is important to improve the ophthalmic health of the community. Current management goals of conjunctivitis aim to minimize the inflammatory cascade associated with allergic response in the initial stages of the pathological mechanism.

Acknowledgement

The author is very grateful to the former head of the science department. The author would like to acknowledge participants for their patience.

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Volume 2 Issue 4 April 2021

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