

**Allergic Conjunctivitis in Zaria, Nigeria: An Assessment at Community Level**

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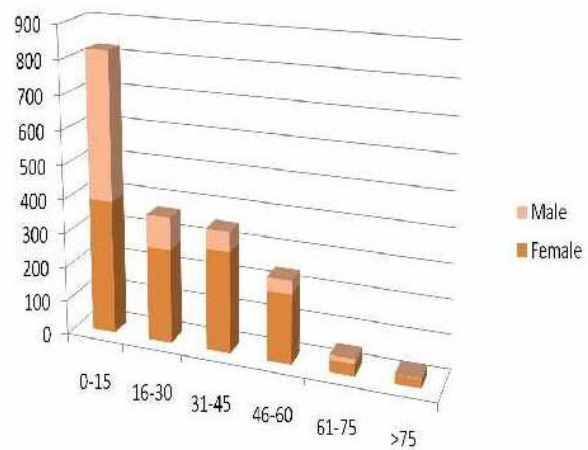
**Background:** Most of the studies on Allergic Conjunctivitis (AC) in our environment and in fact Africa are hospital-based. So, the possibility of underestimating the burden of AC is high because of hospital-attending behaviour. The aim of this study was to determine the prevalence of AC, its distribution and clinical presentation in Zaria community. Traditionally, ocular allergy has been defined as a group of type I and type IV hypersensitivity -mediated ocular surface disease.<sup>1</sup>

**Methods:** A cross-sectional community-based study of 4,128 participants in an Eye Screening exercise was conducted. An Eye Screening Protocol designed by the authors was used to extract relevant information from willing participants.

These included biodata, history, visual acuity, anterior and posterior segment findings. Allergic conjunctivitis was defined as recurrent or chronic itching of the eyes in addition to one or a combination of redness, foreign body sensation, tearing, pain or peppery sensation, stringy discharge or photophobia with signs of conjunctival injection and/or perilimbal conjunctival hyperpigmentation with papillae >1mm on the upper tarsal conjunctiva and/or Limbal infiltration/papillae with or without, pseudoptosis, pseudogerontoxon, corneal erosion and plaques. The data was analyzed using Statistical Package for Social Sciences (SPSS) version 23.0.

**Results:** There were 4128 subjects sampled with 1457 (35.3%) males and 2671(64.7%) females and a M: F ratio of 1:1.8. The age range was 0-99years with a mean of 35.73 ± 21.68. Allergic Conjunctivitis was diagnosed in 45.2%(n=1866) They were 642 males (34%) and 1224 females (65.6%) (Figure 1). The predominant symptom was itching reported by 81.8%(n=1526) (Table 1)

**Discussion:** AC significantly reduces the quality of life of patients and their families because of the discomfort arising from the symptoms and its chronicity. Most studies in Nigeria and other developing countries are hospital based<sup>3,4,5</sup>. This study found the prevalence of AC within Zaria community to be 45.2% and the distribution also cuts across all age groups (0-99yrs). The commonest clinical sign in this study was hyperemia (55.8%). This was similar to the findings in Ghana<sup>6</sup>.



**Fig. 1:** Age and sex distribution of allergic conjunctivitis

**Table 1:** Distribution of symptoms and signs of allergic conjunctivitis

| Symptoms                          | Frequency (%) |
|-----------------------------------|---------------|
| Itching                           | 81.8          |
| Redness                           | 40.2          |
| Tearing                           | 13.1          |
| Mucous discharge                  | 6.4           |
| Gritty/Foreign body sensation     | 2.7           |
| <b>Signs</b>                      |               |
| Conjunctival injection/Hyperaemia | 51.6          |
| Conjunctival hyperpigmentation    | 37.4          |
| Tarsal Papillae                   | 6.3           |
| Trantas dots                      | 4.7           |
| Pseudogerontoxon                  | 1.0           |

**Limitations:** The study was conducted among participants in a screening exercise therefore, possibility of overestimation/bias is high.

**Conclusion:** Allergic conjunctivitis is common in our environment, cutting across all age groups but with a predominance in children, teenagers and females.

### References

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