

Conjunctivitis Outbreak Investigation Among Residents of Chadiza, Mambwe And Mpulungu Districts of Zambia, April 2024

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Introduction

Viral conjunctivitis is a highly contagious ocular inflammation caused by adenoviruses and enteroviruses, making up 80% of all conjunctivitis. Common presenting symptoms are redness, itching, tearing, and discharge. While typically self-limiting, viral conjunctivitis can cause patient discomfort and temporary visual disturbances, making accurate diagnosis and appropriate management crucial for patient care and preventing transmission. Between February and March 2024, suspected viral conjunctivitis outbreaks were reported in the Eastern and Northern Provinces of Zambia. By April, a total of 6,684 suspected cases had been recorded across several districts. We sought to determine the factors contributing to the outbreak and recommend appropriate control and prevention measures.

Methods

A case-control and exploratory study design (mixed-methods approach) was employed. This involved a review of health facility records, interviews with healthcare workers and affected individuals (cases) and unaffected household members (controls). Environmental conditions and sanitation practices in affected areas were also

assessed. Descriptive, qualitative, and analytical analyses were conducted. Bivariable and multi variable analyses were run to pick associations between variables.

Results

For the case-control study we recruited 221 cases and 46 controls. Females accounted for 181(68%) and 75(28%) were children under 17 and median age 25 (IQR: 17-40). Factors associated with increased odds of conjunctivitis included residing in Northern Province (OR: 3.66, 95% CI: 1.59-9.96) and having a household case (OR: 1.49, 95% CI: 1.24-1.84). Elderly individuals had lower odds of developing the disease (OR: 0.04, 95% CI: 0.00-0.35). Qualitative findings included the use of alternative remedies in the community, absence of an incident management system, lack of clear case definitions, and underreporting of cases.

Conclusion

The conjunctivitis outbreak in Zambia was driven by various factors, including household transmission and potential regional differences in environmental exposures. Strengthening

surveillance, implementing incident management systems, and promoting community awareness are crucial for controlling and preventing future outbreaks.