

Adenoviral Conjunctivitis Crisis in Pakistan: A Call for Urgent ActionMaheen Asif¹, Aliza Asif², Umami Aiman Rahman³

Dear Madam, A multitude of infectious diseases present a significant risk to the populace of Pakistan. An addition to the list pertains to adenoviral conjunctivitis, as a surge in these cases has recently been reported in Pakistan, with tens and hundreds of patients flooding hospitals in Karachi and Lahore.¹ Adenoviral conjunctivitis, or Pink Eye Disease is an ocular infection prevalent across the globe. Adenoviruses cause over 65–90% of viral conjunctivitis cases.² It is more contagious than other etiological pathogens, owing to its capacity to stay infectious for extended periods in a dehydrated state at room temperature.³ Most of the previous outbreaks of epidemic conjunctivitis have primarily been linked to serotypes 8, 19, and 37. The initial occurrence of the conjunctivitis epidemic in the US was documented in 1934,² with subsequent instances occurring across the US, Germany and Japan ever since.^{2,4}

The transmission of the virus occurs through contaminated personal objects, infected fingers, medical devices, and swimming pool water. Infected people can spread the infection through tears, excrement, saliva, and breathing droplets. They can transmit virus particles for 14 days after symptoms appear. The symptoms include watery eyes, swelling of the eyelids, light sensitivity, reduced visual acuity, and discomfort. Other manifestations encompass bulbar conjunctival erythema, chemosis, follicular response, and subconjunctival haemorrhage. Although most cases resolve independently, some may develop pseudo-membranes and sub-epithelial corneal infiltrates. This can permanently damage the corneal stroma, impairing vision.² It is for this reason that the current outbreak calls for immediate action.

Such outbreaks threaten a nation's economic and social

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growth, requiring a thorough management plan. While there is no FDA-approved medication for adenoviral conjunctivitis, povidone-iodine irrigation, topical anti-inflammatory therapy, NSAIDs, and removal of the pseudo-membrane have helped in managing the disease. Moreover, education and raising public awareness are crucial. Patients must be provided with accurate information regarding the benign and self-resolving nature of the disease. The significance of regular hand hygiene of patients and healthcare workers should not be underestimated, given the highly transmissible nature of the disease. Infected individuals should refrain from attending work or school until their symptoms subside. Nosocomial spread is expected, so it is recommended that conjunctivitis patients be isolated from other patients within the emergency care setting.⁵ Efforts should also be made to lessen the propagation of the disease to bordering nations. Ultimately, governmental and non-governmental institutions must collaborate to solve this problem.

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References

1. Daily Pakistan Global. After Karachi, Pink Eye infection hits Lahore, Daily Pakistan Global. [Online] [Cited 2023 September 25]. Available from: URL: <https://en.dailypakistan.com.pk/20-Sep-2023/after-karachi-pink-eye-infection-hits-lahore>.
2. Garcia-Zaliskak D, Rapuano C, Sheppard JD, Davis AR. Adenovirus Ocular Infections: Prevalence, Pathology, Pitfalls, and Practical Pointers. *Eye Contact Lens*. 2018; 44:1–7. doi: 10.1097/ICL.0000000000000226.
3. Chaberny IF, Schnitzler P, Geiss HK. An outbreak of epidemic keratoconjunctivitis in a pediatric unit due to adenovirus type 8. *Infect Control Hosp Epidemiol*. 2014; 24:514–9.
4. Jhanji V, Chan TCY, Li EYM, Agarwal K, Vajpayee RB. Adenoviral keratoconjunctivitis. *Surv Ophthalmol*. 2015; 60:435–43. doi:10.1016/j.survophthal.2015.04.001
5. Labib BA, Minhas BK, Chigbu DI. Management of adenoviral keratoconjunctivitis: Challenges and solutions. *Clin Ophthalmol*. 2020;14:837–52. doi: 10.2147/OPHT.S207976.

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