Molecular detection of Adenovirus type 2 among conjunctivitis patients in Khartoum state- Sudan

Asmaa Yousuf Shambal, Nasraldeen M. A. Bush, Salwa Hassan Mohamed Basheer, Musa Abdalla Ali and Marwa M. A. Mohammed

1 Alneelain University-faculty of medical laboratory science-microbiology department; Khartoum, Sudan
2 Khartoum University – faculty of medical laboratory science-microbiology department; Khartoum, Sudan

Email: asmayosuf350@gmail.com

Abstract

Background: Adenoviruses are a group of viruses that can infect the membranes (tissue linings) of the respiratory tract, eyes, intestines, and urinary tract. Diagnosis of conjunctivitis and differentiation between bacterial, viral, and noninfectious conjunctivitis are usually clinical. PCR and other rapid, office-based immunodiagnostic tests can be useful especially when the inflammation is severer.

Objective: This study aimed to detect adenovirus among conjunctivitis infected patients to figure out the possibility of using PCR technique to achieve that goal.

Methods: By using PCR for DNA products of 45 conjunctivitis swabs, to detect adenovirus type 2.

The Results: Only one sample gave a positive result out of 45 samples detected (2.2%)%

Conclusion: It seems to be no adenovirus spreading enough among patients causing their eye illness, therefore other causative agents for conjunctivitis may be existence, as in Sudan most of the year the climate not suitable for adenovirus survival as it lives in cold and wet environments unlike what above local one. However, if any signs suggest bacterial conjunctivitis (eg, purulent discharge), cultures or other studies may be useful. The prevalence of adenoviral conjunctivitis in the study population was lower than the prevalence in other regions of the world.

Key words: Conjunctivitis, Human adenoviruses (HAdVs), polymerase chain reaction (PCR).

References


