Comparison of a rapid Immunochromatographic diagnostic test for Adenovirus detection


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Introduction

Adenovirus strains are known to be diffuse agents of acute gastroenteritis.
Several methods are used to identify this agent. Amongst them are latex agglutination test (LAT) and enzyme-linked immunosorbent assay (ELISA). These techniques if sensitive and specific are either time consuming or need some skills for the interpretation.
Purpose of the present study was to develop a test aimed to be sensitive, specific and friendly to use.

Material and Methods

ELISA Adenoclone

- Stool specimens were obtained from patients suffering of enteritis
- Samples were already tested for bacterial and viral pathogens
- 40/41 specific ELISA (IMP) test protocol has been followed for 40/41 specific Adenovirus evaluation.
- Premier Adenoclone ELISA (Meridian Diagnostic) for group Adenovirus protocol was followed according to insert recommendations.
- Conjugates and diluted samples are incubated together for 60 minutes at room temperature.
- Wells are washed 5 to 6 times with deionized water and then incubated with substrate and TMB for 10 minutes before reading at 450 nm.
- Sample with an absorbance greater than 0.150 should be regarded as positive for the Adenoclone.
- For 40/41 evaluation, we have followed the calculation protocol described in the insert by comparing the sample ADO value with the positive reference one.

Conclusions

The Adeno grp-Strip is very specific.
The Adeno grp-Strip is very sensitive.
Dried used strips could be archived.
The test is simple to use and does not require any special skill to be interpreted.
Time needed to perform 432 samples, including dilution was ±5 hours i.e. half the time needed for the ELISA.
Adeno grp-Strip is the best choice for immediate Adenovirus diagnostic.

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