

RAPID IMMUNOCHROMATOGRAPHIC TEST UNTUK DIAGNOSIS DIARE NOROVIRUS PADA ANAK

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Abstrak

Latar Belakang: Norovirus adalah salah satu pathogen penyebab diare tersering setelah rotavirus di negara maju, yang selanjutnya dapat melebihi rotavirus sebagai penyebab utama dari gastroenteritis pada anak, karena vaksin rotavirus telah digunakan secara luas. Pemeriksaan *rapid immunochromatographic test* Norovirus merupakan metode diagnosis yang cepat, mudah dan murah namun penggunaannya masih dalam perdebatan karena variasi dalam akurasi diagnostiknya.

Tujuan: Untuk mengetahui apakah *rapid immunochromatographic test* dapat digunakan sebagai alternatif diagnostik diare Norovirus pada anak.

Metode Penelitian: Studi *cross sectional* pada anak diare usia 1-60 bulan yang rawat inap di RSUD Dr. Soetomo Surabaya antara April 2013 – Maret 2014. Identifikasi virus pada feses dilakukan dengan *rapid immunochromatographic test QuickNaviTM - Norovirus2* dilanjutkan dengan pemeriksaan RT-PCR.

Hasil: Sebanyak 95 sampel dilakukan pemeriksaan *QuickNaviTM - Noro2*, dilanjutkan dengan pemeriksaan RT-PCR. Pemeriksaan dengan *QuickNaviTM - Norovirus2* didapatkan 64 sampel positif. *Rapid immunochromatographic test Quick NaviTM Noro2* memiliki sensitivitas 90,3%, spesifisitas 42,9%, NPP 43,8%, NPN 90% dan akurasi 58,5%. Hasil penelitian didapatkan GI sebesar 1 (1,1%) dari 94 sampel, dan GII sebanyak 30 (32%) dari 94 sampel.

Kesimpulan: *Rapid immunochromatographic test* belum dapat digunakan sebagai alat uji diagnostik diare Norovirus pada anak.

Kata kunci: Diare Norovirus, *rapid immunochromatographic test*, RT-PCR

RAPID IMMUNOCHROMATOGRAPHIC TEST IN DIAGNOSIS NOROVIRUS GASTROENTERITIS IN CHILDREN

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Abstract

Background: Norovirus is the most common cause of epidemic gastroenteritis in developed countries, which in turn can exceed rotavirus as a major cause of gastroenteritis in children, because the rotavirus vaccine has been widely used. Rapid immunochromatographic test is one of the diagnostic method to detect Norovirus which is quick and simple but the application is still vary due to the diversity of the virus strain.

Objective: To determine rapid immunochromatographic test is useful as an alternative in diagnosing Norovirus gastroenteritis in children.

Methods: Cross-sectional study was conducted in children aged 1-60 months of diarrhea hospitalizations patients in Dr. Soetomo hospital between April 2013 - March 2014. Identification of virus in the stool samples were made by *Rapid immunochromatographic test QuickNaviTM - Norovirus2* and then tested by RT-PCR.

Results: A total of 95 samples were tested by *QuickNaviTM - Norovirus2*, and confirmed by RT-PCR examination. There were 64 positive samples by *QuickNaviTM - Norovirus2*. *Rapid immunochromatographic test QuickNaviTM - Norovirus2* has sensitivity of 90,3%, spesifisity 42,9%, NPP 43,8%, NPN 90% dan accuracy 58,5%. There were GI 1 (1,1%) out of 94 samples, and GII were 30 (32%) out of 94 samples.

Conclusion: Rapid immunochromatographic test may not be used as a diagnostic method of Norovirus in children stool samples.

Keywords: *Norovirus gastroenteritis, rapid immunochromatographic test, RT-PCR*