



Trends of Post-vaccination Rotavirus infection and its association with other viruses

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Abstract:

Since its discovery back 40 years ago, Rota virus (RV) has remained one of the major public health concerns and a third leading cause of infants as well as childhood mortality and morbidity. In the recent past, every third child was at the risk of diarrhea specially in Asia and Africa, owing to the lack of proper healthcare facility, signifying RV as their prime origin. RV infection is referred to as a seasonality-based infection and sometimes called as 'winter vomiting disease' but in some regions it is present round the year. According to an estimate, 90% of RV infection-based mortalities occur in developing region of the world. Rotarix (monovalent) and RotaTeq (pentavalent) are live oral vaccines that have been developed successfully and are being used in more than 100 countries since 2006, to reduce the severity and burden of disease. In Pakistan, Rota virus vaccine was firstly introduced in early year 2017, in the province of Punjab. Later on, in 2018 it was included in the EPI schedule of the all four provinces of the country (Punjab, Sindh, Khyber Pakhtunkhwa and Baluchistan). This study was designed to analyse the effect and impact of RVA vaccination on the population and upon the genetic diversity of virus world in general and Pakistan in particular. Moreover, the association of other RNA viruses along with Rota virus in causing gastroenteritis has also been investigated. Stool sample were collected from the major tertiary care hospitals of twin cities of Pakistan: Islamabad, and Rawalpindi. Nucleotide amplification and antigen detection was performed by RT-PCR, using VP7 amplification primers Beg9 and End9 for Rotavirus.

Biography:

Ms Afza Shabbir, is a Post-graduate researcher at COMSATS University Islamabad, Pakistan. Her major field is Microbiology. She has obtained a bachelor's degree in Microbiology, worked on bacteria in her final year project and now she is doing her research in virology. Ms Afza is



a passionate young researcher with intense love for learning new things all around. She has worked as an internee in Industrial Environmental Biotech. Lab (IEBL) and as microbiologist in Mehr Waters -Water Quality Laboratory. She has perfection in bacterial and viral laboratory techniques including microscopy, bacterial culturing, morphology characterization, ELISA, PCR, gel electrophoresis, RNA, DNA and Plasmid extraction. Ms Afza is keen working in her field and want to explore human virome in her doctorate research.

Publication of speakers:

1. Kyophilavong, P., Afza Shabbir., Shahbaz, M., Rehman, I., Souksavath S. and Chanthasene, S. (2018), "Investigating the Relationship between Trade Balance and the Exchange Rate: The Case of Laos' Trade with Thailand", *Global Business Review*, Vol: 19, Issue: 4.
2. Shahzad, S. J. H., Nor, Afza Shabbir., S. M., Hammoudeh, S. and Shahbaz, M. (2017), "Directional and Bidirectional Causality between U.S. Industry Credit and Stock Markets and their Determinants", *International Review of Economics & Finance*, pp: 46-61, Vol: 47, Standard: 1059-0560, Impact Factor: 1.846 (External URL).
3. Mahalik, M. K., Suresh. B., Nanthakumar, L. and Shahbaz, M. (2017), "Does Financial Development Intensify Energy Consumption in Saudi Arabia?", *Renewable & Sustainable Energy Reviews*, Standard: 1364-0321.

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