

3rd World Congress and Expo on**Applied Microbiology**

November 07-09, 2016 Dubai, UAE

An effort to optimize molecular diagnosis of *Nipah virus* (NiV) by PCR for the detection of infection

Farhina Pasha

University of Tabuk, KSA

The present study was aimed at optimization of PCR as molecular diagnosis tool for the detection of *Nipah virus* infection and expression of recombinant protein for which 'G' gene of NiV was targeted. Different primer sets were designed with the help of Bioinformatics software DNASTar (Lasergene) and recombinant protein was expressed in *E.coli* cells. A total of 98 clinical samples were screened for the desired sequence of NiV 'G' gene by PCR. The results indicated that, firstly the primers designed were found to be specific for 'G' region of NiV and could be used to amplify various fragments of NiV 'G' region. Also when these primers were used in different combinations, a large fragment of NiV 'G' gene (1 kb) could be amplified. Secondly of the 98 clinical samples screened none of them were found to be positive for NiV infection in conventional PCR. Amplification and cloning of 1 kb fragment of 'G' gene of NiV was done in pGEMT-Easy vector. 1 kb fragment of 'G' gene of NiV could be sub cloned in two different expression vector systems i.e., pET-28(+) B and pGex-5x-1. In both the cases the recombinant protein could be obtained in the form of soluble fraction. The yield of expressed protein was more in case of pET 28(+) vector but the stability was less in second and third passages while in case of pGex-5x-1 the yield of the expressed protein was less but the stability was more in second and third passages. The specificity of recombinant protein was confirmed by Western Blot analysis using penta his-HRP and GST-HRP conjugate in case of pET 28(+) B and pGex-5x-1 respectively. The protein would be used for raising antibodies and further used as diagnostic reagent for the detection of NiV antibodies.

fbasha@ut.edu.sa

Toxoplasmosis among Saudi female students in Al-Ahssa, Kingdom of Saudi Arabia: Awareness and risk factors

Fatma Ali Al Shehri

King Faisal University, KSA

Background & Aim: Toxoplasmosis is a worldwide disease that severely affects the fetuses and immunocompromised patients and results in many critical and life threatening conditions. The present study aimed to evaluate the awareness of toxoplasmosis and its preventive behaviors among female students in King Faisal University in Al-Ahssa.

Subjects & Methods: A cross sectional study was conducted in April 2014 among female students in KFU. The data were collected by a questionnaire from 88 participants.

Results: Results showed that 65.4% were not aware of toxoplasmosis and only 28.2% were aware of its complications or risk factors. This study showed that some people are at risk to get toxoplasmosis as they do not wash their hands with water and soap before eating (48.8%), do not wash the fruits and vegetables with water and soap (78.2%), drink tank water (51.3%) and cat owners do not follow the proper measures for their cats. However, some people practice some of the preventive behaviors as they do not raise the cats (93.6%) and do not consume unpasteurized or non-boiled milk (100%) or undercooked meat (92.3%).

Conclusion: The current study proved the low awareness of toxoplasmosis which emphasized the need to educate the people in Al-Ahssa about the preventive methods, especially the pregnant women to prevent the severe complications of congenital infections.

benzinafarida@yahoo.fr