J Vaccines Vaccin 2015, 6:3
http://dx.doi.org/10.4172/2157-7560.S1.025

OMICS International
conferenceseries.com

5th Asia Pacific Global Summit and Expo on
Vaccines & Vaccination

July 27-29, 2015 Brisbane, Australia

The Evaluation of Hepatitis C Virus Core Antigen in Immunized Balb/C Mice

Mojgan Bandehpour
University of Medical Sciences, Iran

Hepatitis infection represents one of the important causes of morbidity and mortality in developing countries, however there is not any effctive vaccine against hepatitis C which is one of the signifiant problems in vaccine project. The aim of the present study is to evaluate the role of HCV core protein in inducing IFN-Gamma secretion and TCL activities as a vaccine in Balb/C mice. Our previous cloned plasmid (HCV Core gene into pETDuet-1) applied for protein expression in bacteria. The expressed and purifid recombinant protein together with Freund's adjuvant was injected to 15 Balb/c mice. The total IgG and IgG2a of immunized mice sera were evaluated after a week. Two weeks after booster injection, we studied the proliferation and IFNγ secretion of spleens, inguinal and popliteal lymph nodes lymphocytes by ELISA and ELISPOT. The FSFC (Frequency of spot forming cells) of secreting cells of immunized mice with HCV/Core protein and sera IgG2a were considerably higher than the control groups. The core protein together with proper adjuvant can be a candidate vaccine against of HCV infection.

Bandehpour@gmail.com

Design and preparation of RNA vaccine against hepatitis C

Zarin Sharifnia
Tabriz University of Medical Sciences, Iran

Hepatitis C virus is a blood borne disease estimated to infect more than 350 million people globally and is a leading cause of liver cirrhosis, transplantation and hepatocellular carcinoma. Current gold-standard therapy often fails, has significant side effects in many cases and is expensive. The fact that a significant proportion of infected people spontaneously control HCV infection in the setting of an appropriate immune response suggests that a vaccine for HCV is a realistic goal but no vaccine is currently available. The present study was designed to investigate the possibility of a new vaccine against the hepatitis C virus based on mRNA encoding of membrane antigens (Core &E2) of hepatitis C virus.Nucleotide sequence of mRNA encoding core and E2 antigen of HCV virus by bioinformatics program was design and in pGE plasmid vector was prepared. Then in vitro transcription reactions are used to synthesize mRNA from this recombinant DNA template. Nanoparticles encapsulated this mRNA synthesized and delivered to Monocytes isolated from human buffy coat and the activation and differentiation of monocyte to dendritic cells was examined. Immune response such as secretion of cytokines to HCV antigen can also be studied since cells grown on permeable supports with co-culture dendritic cells and T-cells of the same person.This project will be ongoing and final results of this study will be reported at the conference.

zarin.sharifnia@gmail.com