Vaccines and immunity

PO - (8559) - ASSESSMENT OF THE EFFECT OF RVSV REPLICATION ON NON-EBOLA CIRCULATING ANTIBODIES IN RVSV-ZEBOV-GP VACCINATED INDIVIDUALS IN LAMBARÉNÉ, GABON.

Ndong Mbouna, Armel Vivien (Gabon)1,3; Agnardji, Selidji Todagbe (Gabon)2,3

1 - Centre de Recherche de Lambarene, Gabon; 2 - Institut für Tropenmedizin, Universitätsklinikum Tübingen, Germany; 3 - Centre de Recherches Médicales de Lambaréné (CERMEL), Lambaréné, Gabon

BACKGROUND:

The latest West Africa Ebola virus disease (EVD) outbreak between 2015 and 2016 accelerated the need for safe and effective vaccines. Among candidate vaccines in clinical development, the recombinant Vesicular stomatitis virus (VSV) vectored with the Ebola virus (EBOV) glycoprotein (rVSV-ZEBOV-GP) vaccine showed acceptable safety and promising immunogenicity results across diverse settings.

Baseline screening data from the phase 1 trial of this vaccine in Lambaréné, Gabon reported about 21% (33/155) and 8% (12/155) of adults had naturally acquired antibodies to infectious ZEBOV particle and ZEBOV-GP respectively prior to vaccination. In participants with prior ZEBOV(-GP) antibodies, post-vaccination antibodies titres were significantly higher 56 days following vaccination with doses of $3 \times 10^3$, $3 \times 10^4$, and $3 \times 10^6$ PFU compared to those without.

Our study seeks to investigate rVSV vector non-specific boosting of naturally acquired antibodies to other viral infections (Dengue virus 1-4, and Yellow Fever virus).

METHODS:

We measured antibodies titres to Dengue 1-4 and Yellow fever infection at baseline, 28 and 56 days after injection in a total of 155 serum samples from vaccinees receiving various doses of rVSV-ZEBOV-GP using ELISA technique.

RESULTS:

Results will be provided at a later date.

CONCLUSION:

Our results confirms rVSV vector non-specific replication on non ZEBOV-GP circulating antibodies) in Lambaréné vaccinees and potential boosting action on naturally acquired Dengue virus (serotype1-4) and Yellow Fever virus antibodies.