

Geneva, August 4th 2015

The selected dose of VSV-ZEBOV vaccine is the proper one to protect against Ebola

In its 4 August 2015 issue, the *Lancet Infectious Diseases journal* publishes new results of the clinical trial conducted at the University Hospitals of Geneva (HUG) with the experimental vaccine VSV-ZEBOV. By strongly reducing the dose injected to volunteers, HUG experts noticed a reduction of inflammatory reactions (fever, soreness etc.), but without a reduction in the frequency of joints or skin inflammations. Moreover, the quantity of antibodies produced as an answer to the vaccine was also weaker. These results confirm the choice of a higher dose of VSV-ZEBOV vaccine to protect against Ebola.

To counteract the epidemics in West Africa, the World Health Organization (WHO) requested HUG, in August 2014, to carry out one of the first clinical trials with the VSV-ZEBOV vaccine. Less than 300 days after the first vaccination, this vaccine is proved 100% efficient in Guinea, one of the regions that are still affected by the Ebola virus (according to WHO's release of 31 July 2015).

As early as April 2015 HUG team published, in the prestigious *New England Journal of Medicine*, preliminary results based on the first vaccinations made with the higher vaccine doses. The new results published in *Lancet Infectious Diseases* of 4 August 2015 confirm the choice of the dose of VSV-ZEBOV vaccine.

Indeed, the volunteers who received 300,000 vaccine particles (instead of 10 or 50 million injected in the first phase of the trial) had less inflammatory reactions such as fever or soreness. On the contrary, joint and cutaneous inflammations noticed at some subjects remained similar, in terms of intensity and duration, to those noticed with the higher doses.

Remarkably, the VSV-ZEBOV vaccine induced antibodies in more than 9 volunteers out of 10 even at the lowest vaccine dose. However, the antibodies rates remained weaker. "The antibody rate that is necessary to protect against Ebola virus is not known yet, because all the persons who were vaccinated in the Guinea trial were protected. As long as this rate is not known, we would better use a higher vaccine dose", explains Professor Claire-Anne Siegrist, head of HUG Centre for Vaccinology.

The entire team reunited around Professor Siegrist to conduct this trial wishes to thank again all the volunteers who participated in this trial. "Today the vaccine tested at HUG

showed its efficiency to protect the persons vaccinated in Guinea and their contacts. A part of the credit goes to each of the volunteers”. As foreseen, their follow-up shall be continued in order to establish the duration of the protection.

In what concerns laboratory researches, they are focused from now on the detailed analysis of the answers generated by VSV-ZEBOV at the human being within the framework of a large project funded by the European Union and steered by Claire-Anne Siegrist, Professor at the University of Geneva and manager of WHO’s Collaborator Centre for Vaccinology.

Links

- [article published in Lancet Infectious Diseases of 4 August 2015](#)
- [interview vidéo de la Prof Claire-Anne Siegrist, cheffe du centre de vaccinologie des HUG](#)

English version, available at 3 p.m. (Geneva time):

- [video interview with Prof. Claire-Anne Siegrist, head of HUG Centre for Vaccinology](#)

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