H5N1 influenza vaccine elicits promising cross-immunity

A split-antigen influenza A H5N1 virus vaccine* formulated with an adjuvant elicits a promising level of cross-immunity against an antigenically drifted H5N1 strain, according to the results of two studies presented at the International Symposium on Respiratory Viral Infections.

In an observer-blind, randomised study, 400 adult humans received two doses of either 3.8µg, 7.5µg, 15µg or 30µg of the vaccine (H5N1 clade 1 A/Vietnam/1194/04 split virion haemagglutinin), with or without the adjuvant, administered 21 days apart.

On day 42, the neutralising antibody seroconversion factor against the antigenically drifted H5N1 clade 2 A/Indonesia/5/05 strain was 77.1% in patients who received the vaccine with the adjuvant, but < 3% in patients who received the vaccine without the adjuvant.

The second study involved 23 animals that received IM inoculations with 15µg doses of the vaccine, the adjuvant alone, or the adjuvant plus vaccine at doses of 15µg, 7.5µg, 3.8µg or 1.7µg, on days 0 and 21. The animals were then challenged on day 49 with 105 TCID50** of H5N1 clade 2 A/Indonesia/5/05. Protection against this dose was achieved in 22 out of 23 animals (96%).

Jean Stephenne, president of GlaxoSmithKline Biologicals, says that these data suggest that "proactive administration of our pre-pandemic vaccine before or just after the start of the pandemic could help to substantially slow down the spread of disease".

* GlaxoSmithKline; preregistration in the EU

** 50% tissue culture infective dose; the quantity required to produce a degenerative or diseased condition in 50% of inoculated cell cultures

GlaxoSmithKline. New Studies Indicate GSK's Pre-Pandemic Influenza Vaccine Can Protect Against Different Strains of H5N1. Media Release : 5 Mar 2007. Available from: URL: http://www.gsk.com

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