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Session: 152. Herpes Zoster Vaccine
Friday, October 6, 2017: 12:30 PM

Background. We conducted a phase 1, randomized, double-blind, placebo-controlled trial of a replication-defective HSV-2 vaccine, HSV529 (deleted for UL5 and UL29), in 60 healthy adults aged 18 to 40 years.

Methods. Subjects were enrolled in groups of 20 from 3 serogroups: HSV1+ or -/HSV2+ (group 1), HSV1+/HSV2– (group 2), and HSV1-/HSV2– (group 3). At months 0, 1, and 6, 15 subjects in each group received HSV529 intramuscularly and 5 subjects received placebo. The primary endpoint was the frequency of solicited injection site and systemic reactions from day 0 to 7 after each vaccination and unsolicited adverse events up to 6 months after the last dose.

Results. 89% of vaccine recipients experienced a mild to moderate solicited injection site reaction vs. 47% of placebo recipients (P = 0.006, 95% CI 0.129, 0.676) that did not preclude additional doses. 64% of vaccine recipients experienced solicited systemic reactions vs. 53% of placebo recipients (P = 0.44, 95% CI -0.179, 0.402). Two serious adverse events occurred in 2 participants and were assessed as unrelated to HSV529 administration. Serum neutralizing antibody titers significantly increased from baseline after 3 doses of HSV529 compared with placebo in group 3 only (P < 0.001). This increase persisted up to 6 months after the third dose of vaccine (P < 0.001). Serum and vaginal antibodies to HSV2 glycoprotein D (gD) also significantly increased after 3 doses of vaccine in group 3 subjects (P < 0.001 and P = 0.012, respectively). The mean vaginal gD titer after 3 doses was about one-third of the mean serum gD titer. In addition, the vaccine induced significant levels of HSV2-specific antibody dependent cellular cytotoxicity (ADCC) after 3 doses in group 3 subjects compared with placebo (P < 0.001). Vaccine-induced CD4 T-cell responses were detected in 46%, 27%, and 36% of subjects in groups 1, 2, and 3, respectively, one month after the third dose of vaccine. CD8 T-cell responses were detected in 8%, 18%, and 14% of subjects in groups 1, 2, and 3, respectively, at the same time point.

Conclusion. The HSV529 vaccine was safe, well-tolerated, and immunogenic, eliciting significant neutralizing, gD, and ADCC-mediating antibodies, and modest cellular immune responses in HSV seronegative individuals. NCT01915212

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1346. Results of a Safety Pooled Analysis of an Adjuvanted Herpes Zoster Subunit Vaccine in More than 14,500 Participants Aged 50 Years or Older

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Session: 152. Herpes Zoster Vaccine
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Background. The recombinant herpes zoster (HZ) subunit vaccine (HZ/su) has shown efficacy against HZ in adults ≥50 and ≥70 years of age (YOA), in two pivotal Phase III clinical trials (NCT01165177, NCT01165229). A pooled safety analysis of data from these two efficacy studies was performed, including a comparative analysis on HZ/su vs. placebo groups, to provide a comprehensive understanding of the HZ/su safety profile.

Methods. Two pivotal, randomized, placebo-controlled Phase III studies, assessed the efficacy, reactogenicity and safety of HZ/su, administered intramuscularly according to a 0, 2-month schedule. Solicited and unsolicited adverse events (AEs) were collected for 7 and 30 days after each dose, respectively; serious AEs (SAEs) for 1 year after last dose; fatal and related SAEs and potential immune-mediated diseases (pIMDs) during the entire study period. Reactogenicity was assessed in a subset of participants; safety was assessed in all vaccinated participants.

Results. 29,305 participants ≥50 YOA (HZ/su: 14,645; placebo: 14,660) were included in the pooled analysis. HZ/su was more reactogenic than placebo. Local reactions were mostly mild to moderate in intensity and transient (median duration = 3 days); the percentages of participants reporting SAEs, fatal SAEs and pIMDs were similar in both groups, at 30 days and 1 year after last dose (Figures 1 and 2). Percentages of fatal SAEs ranged between 4.3% (95% Confidence Interval [CI]: 4.0–4.7) and 4.6% (95% CI: 4.3–5.0) and pIMDs between 1.2% (95% CI: 1.1–1.4) and 1.4% (95% CI: 1.2–1.6), in HZ/su and placebo groups, respectively. In both groups, the most frequent causes of death were neoplasms, cardiac disorders, and respiratory tract infections and infestations, and most frequent pIMDs were polymyalgia rheumatica, rheumatoid arthritis and psoriasis.

Conclusion. No safety concern was identified. Together with the high efficacy against HZ (97.2% [95% CI: 93.7–99.0],[1] 91.3% [95% CI: 86.8–94.5][2]), the safety data supports a favorable benefit/risk profile of HZ/su in participants ≥50 YOA.

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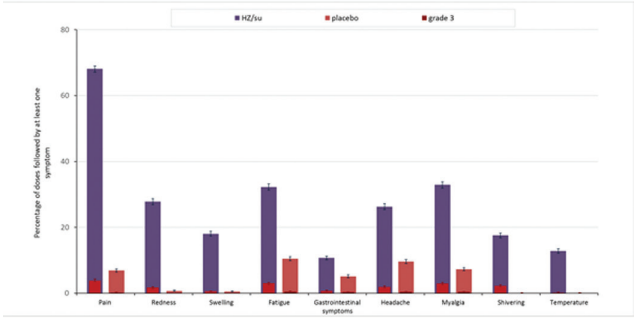
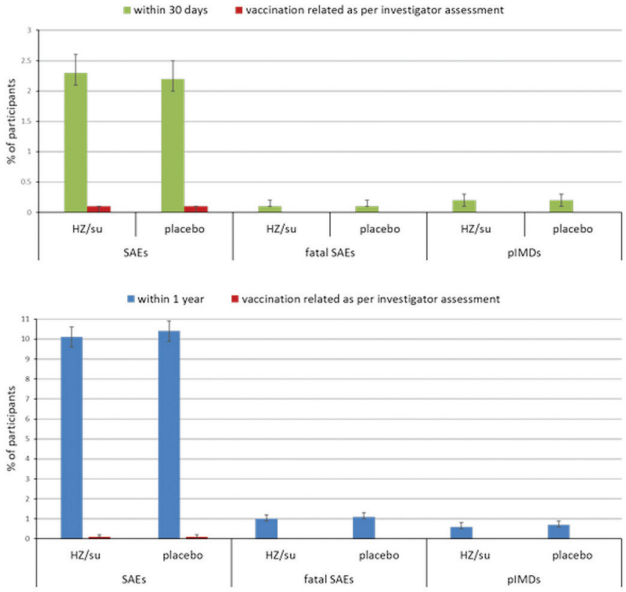
Figure 1: Incidence of solicited symptoms reported during the 7-day after vaccination period



Temperature is defined on oral, axillary, rectal or tympanic; Error bars depict 95% confidence intervals (CIs).

Figure 2: Overview of SAEs, fatal SAEs and pIMDs within 30 days and 1 year after last vaccination, respectively



SAEs, serious adverse events; pIMDs, potential immune-mediated diseases; Error bars depict 95% confidence intervals (CIs).

Disclosures. **M. López-Fauqued**, GSK Biologicals': Employee, Salary; **L. Campora**, GSK Biologicals': Employee, Salary; **F. Delannois**, GSK Vaccines: Employee, Salary; **M. El Idrissi**, GSK Vaccines: Employee, Salary; **E. Ledent**, GSK Vaccines: Employee, Salary; **J. Diez-Domingo**, GSK Vaccines: Consultant and Investigator, Educational support and Research grant; **J. McElhaney**, GSK Vaccines: Scientific Advisor, Speaker honorarium; **S. McNeil**, GSK/Merck: Grant Investigator, Investigator and Scientific Advisor, Consulting fee, Grant recipient, Research grant, Research support and Speaker honorarium; **F. De Looze**, GSK Vaccines: Investigator and Research Contractor, Research support; **F. Tavares Da Silva**, GSK Vaccines: Employee, restricted shares and Salary

1347. A Cost-Effectiveness Analysis of an Adjuvanted Subunit Vaccine for the Prevention of Herpes Zoster and Post-Herpetic Neuralgia

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