

1130. An Administrative Data-Based Study on the Association Between Psychological Stress and Herpes Zoster: Might the Conventional Wisdom Be Wrong?

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Background. It is a commonly-held belief that herpes zoster (HZ) can be provoked by psychological stress. We used data from a large national dataset to investigate this contention.

Methods. We used medical claims data from 2002-2011 Truven Health Market-Scan[®] Commercial Databases to evaluate the possible association of psychological stress with HZ in adults aged ≥ 25 years. We defined stress as an abrupt death or catastrophic health event occurring in a previously-healthy spouse (i.e., an age-matched co-beneficiary of the opposite gender). We used self-controlled case series methods to assess for increases in HZ events during a 3-month risk window following stress as compared to a 3-month control window (days 120-30) prior to stress. To control for changes in health seeking that might occur in persons experiencing stress, we also

used Poisson regression to assess for increases in HZ as a proportion of all outpatient health care services during the risk as compared to control window. Finally, we used mental health visits (anxiety states [ICD-9 300.0 and 300.0x]; acute stress reaction [ICD-9 308 and 308.x]; adjustment reaction [ICD-9 309.xx]) as a positive control to validate our case definition of stress, applying Poisson regression to test whether the proportion of these visits increased during the risk window compared to the control window.

Results. Among 39,811 persons experiencing stress, 137 developed HZ during the observation period. The incidence of HZ was not increased during the risk window, whether assessed as incidence rate ratio (0.76; 95% CI, 0.54-1.06), or as ratio of proportion of all outpatient health services (0.99; 95% CI, 0.70-1.39). The risk of HZ was not increased when stratifying by age, in different risk windows ranging from 1 to 3 months, or among persons whose stress was the abrupt death of their spouse (an extreme subset of our case definition for stress). Patients experiencing stress did have increased utilization of mental health services (i.e., our positive control), assessed as the ratio of proportion of all outpatient health services (1.87; 95% CI 1.67-2.10).

Conclusion. Our study did not find an association between psychological stress and HZ. Administrative data have limitations but we used novel methods to strengthen our conclusions.

Disclosures. All authors: No reported disclosures.