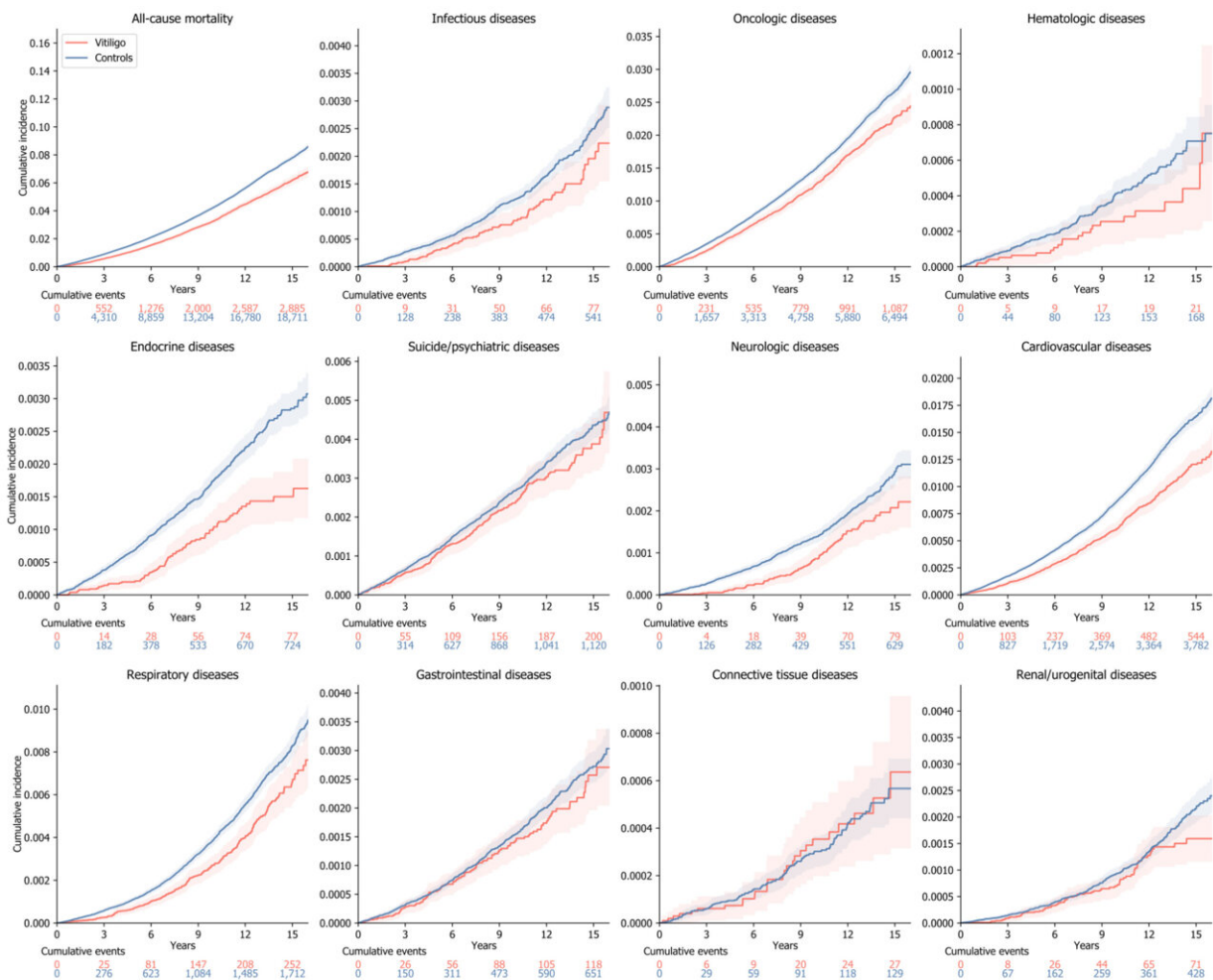


New evidence indicates vitiligo-associated autoimmunity may contribute to reduced morbidity and mortality risk

September 19 2023



Cumulative incidence curves for all-cause and cause-specific mortality in patients with vitiligo and control without vitiligo, The cumulative incidence curves show the cumulative incidence functions and the number of events in

patients with vitiligo and controls. The shaded area shows 95% confidence interval of the cumulative incidence function. Credit: *Journal of Investigative Dermatology* (2023). DOI: 10.1016/j.jid.2023.07.007

According to a new study comparing patients with and without vitiligo in South Korea, patients with vitiligo were associated with a 25% decreased risk of mortality compared with controls. This suggests that vitiligo-associated autoimmunity may play a role in reducing morbidity and mortality. The [results](#) appear in the *Journal of Investigative Dermatology*.

Previous studies have documented a reduced risk of cancer in patients with [vitiligo](#), however, there has been limited research on the relationship between vitiligo-associated autoimmunity and the risk of morbidity and mortality among patients with vitiligo.

Lead investigator Jung Min Bae, MD, Ph.D., Department of Dermatology, St. Vincent's Hospital, College of Medicine, The Catholic University of Korea, explains: "As a clinician, one of my goals is to conduct research that can encourage my patients with vitiligo. It was interesting to find that immunotherapy used in [cancer treatment](#) often induces autoimmune side-effects like vitiligo."

"My colleagues and I hypothesized that vitiligo, which is an autoimmune disorder, could have a protective effect against cancer. Our research shows that patients with vitiligo were associated with a 25% decreased risk of mortality compared to the controls, suggesting that vitiligo-associated autoimmunity may contribute to reduced morbidity and mortality."

The mortality of patients with vitiligo was investigated in a population-based cohort using the National Health Insurance Service (NHIS)

database and the National Death Registry in South Korea. All-cause and cause-specific mortality were compared between patients with vitiligo and controls. In total, 107,424 patients with incident vitiligo and 537,120 matched controls were included.

The [mortality rates](#) were 34.8 and 45.3 per 10,000 person-years in patients and controls, respectively. In addition to cancer, other cause-specific mortality including [infectious diseases](#), hematologic diseases, endocrine diseases, neurologic diseases, cardiovascular diseases, [respiratory diseases](#), and renal/urogenital disease was lower in patients with vitiligo.

According to co-lead investigator Solam Lee, MD, Ph.D., Department of Dermatology, Yonsei University Wonju College of Medicine, "The strength of our study is the utilization of the large NHIS database, which provides comprehensive information about patient BMI, lifestyles, comorbidities, laboratory findings, and linkage with death certificates. The study employed various statistical methods to reduce the potential bias, which makes the results more robust."

Whether these findings are attributable to the autoimmune mechanism of vitiligo itself or to unexpected effects of vitiligo treatment modalities (e.g., phototherapy) remains to be clarified in future studies.

First author Hyun Jeong Ju, MD, Ph.D., Department of Dermatology, St. Vincent's Hospital, College of Medicine, The Catholic University of Korea, adds, "Our findings are significant because they suggest that the autoimmune nature of vitiligo may confer certain protective effects against various causes of mortality, and they offer new avenues for research into the mechanisms underlying this protective effect."

"Moreover, understanding the [mortality](#) risk in patients with vitiligo will lead to improved patient counseling, health monitoring, and overall

management strategies for [patients](#)."

Vitiligo is a chronic skin disorder characterized by depigmented patches; worldwide prevalence is estimated at 0.5-2% of the general population. Multiple factors contribute to the pathogenesis of vitiligo including susceptibility to [oxidative stress](#), functional abnormalities of melanocytes, adhesion defect between melanocytes and keratinocytes, and autoreactive cytotoxic T cells.

More information: Hyun Jeong Ju et al, All-cause and cause-specific mortality among patients with vitiligo: A nationwide population-based study in Korea, *Journal of Investigative Dermatology* (2023). [DOI: 10.1016/j.jid.2023.07.007](#)

Provided by Elsevier

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