Parkinson Disease Associated With Depression

People diagnosed with depression were nearly three times more likely to develop Parkinson disease compared with those without depression, according to a study published in *Neurology*.[1]

Researchers followed patients without depression (n = 421 943) and with depression (n = 140 688; total N = 562 631) in a 3:1 ratio for a median 6.8 (range, 0-26.0) years, tracking the rate of Parkinson disease diagnosis. During the follow-up period, 3260 patients were diagnosed with Parkinson disease.

Within the first year of depression, the multivariable adjusted odds ratio (OR) for Parkinson disease diagnosis was 3.2 (95% CI, 2.5-4.1); the OR decreased to 1.5 (95% CI, 1.1-2.0) after 15 to 25 years. Hospitalization for depression was an independent risk factor for Parkinson disease for the cohort with depression (OR, 1.4; 95% CI, 1.1-1.9 for ≥ 5 vs 1 hospitalization), suggesting that more severe forms of depression increased the risk of Parkinson disease diagnosis. Family analyses showed that siblings' depression was not significantly associated with risk for Parkinson disease diagnosis (OR, 1.1; 95% CI, 0.9-1.4).

"The time-dependent effect, dose-response pattern for recurrent depression, and lack of evidence for coaggregation among siblings all indicate a direct association between depression and subsequent Parkinson disease," the study authors wrote. "Given that the association was significant for a follow-up period of more than 2 decades, depression may be a very early prodromal symptom of Parkinson disease, or a causal risk factor."

1. Gustafsson H, Nordström A, Nordström P. Depression and subsequent risk of Parkinson disease [published online ahead of print May 20, 2015]. *Neurology*. doi:10.1212/WNL.0000000000001684.

Proton Pump Inhibitors Linked With Cardiovascular Risk

Proton pump inhibitors (PPIs) were associated with increased risk of myocardial infarction (MI) and an overall increased risk of cardiovascular mortality, according to a study published in *PLoS One*.[1]

Researchers used data-mining approaches from multiple sources (16 million clinical documents on 2.9 million patients) to investigate MI rates in patients with gastroesophageal reflux disease (GERD) exposed to PPIs. Among this cohort, patients had a 1.16-fold (95% CI, 0.19-1.24) increased association with MI compared with patients not exposed to PPIs. Survival analysis in a prospective cohort found that risk of cardiovascular mortality was doubled in the PPI group versus the non-PPI group (hazard ratio [HR] 2.00; 95% CI, 1.07-3.78; $P = .031$).

Researchers found no association between cardiovascular risk and H2 blockers, an alternative treatment for GERD.

1. Shah NH, LePendu P, Bauer-Mehren A, et al. Proton pump inhibitor usage and the risk of myocardial infarction in the general population. *PLoS One*. 2015;10(6):e0124653.

Sleeping Pill Use, Car Accident Rates Linked

Use of sedative hypnotics for sleeping disorders is associated with increased risk of motor vehicle crash risk, according to a study published in the *American Journal of Public Health*.[1]

Researchers examined the records of 409 171 adults; all records were in an integrated health care system and were linked to driver license and collision records for licensed drivers in Washington State. Researchers examined the rates of car collisions and use of temazepam (Restoril, Mallinckrodt), trazodone (Oleptro, Labopharm), and zolpidem (Ambien, Sanofi-Aventis).

Among the study population, 5.8% of patients received new sedative prescriptions. Relative to nonusers, new users of temazepam had an increased HR for motor vehicle collision of 1.27 (95% CI, 0.85-1.91); the HRs for trazodone and zolpidem were 1.91 (95% CI, 1.62-2.25) and 2.20 (95% CI, 1.64-2.95), respectively.

1. Hansen RN, Boudreau DM, Ebel BE, et al. Sedative hypnotic medication use and the risk of motor vehicle crash [published online ahead of print June 11, 2015]. *Am J Public Health*. doi:10.2105/AJPH.2015.302723

Melanoma Rates, Cost of Treatment Projected to Increase

Rates of melanoma, and the corresponding cost of treatment, are expected to increase, resulting in an estimated 21 000 additional diagnoses by 2030 if intervention is not taken, according to research published in the *Morbidity and Mortality Weekly Report*.[1] However, the increased incidence rate is not expected to result in an increased rate of death, according to the report.

Researchers estimated that melanoma is responsible for 9000 deaths per year; in 2011, the incidence rate of melanoma was 19.7 per 100 000, and the death rate was 2.7 per 100 000. Researchers estimated that a comprehensive skin cancer prevention program could result in

2100 melanoma cases averted per year, or 230 000 cases averted from 2020 to 2030.

The annual cost of treating diagnosed melanoma cases would increase by 252.4% (from $457 million to $1.6 billion) from 2011 to 2030 if no intervention program is initiated, according to the report. A comprehensive skin cancer prevention program would result in $250 million annual reduction in the cost of treating newly diagnosed melanoma cases, resulting in a savings of $2.7 billion from 2020 to 2030.

1. Guy Jr GP, Thomas CC, Thompson T, et al. Vital signs: melanoma incidence and mortality trends and projections — United States, 1982–2030. *MMWR Morb Mortal Wkly Rep*. 2015;64(21);591-596.

Blood Test Identifies Pancreatic Cancer With Absolute Specificity and Sensitivity

Detection of a specific type of extracellular vesicles in the bloodstream identified patients with pancreatic cancer with absolute specificity and sensitivity, according to a study published in *Nature*.[1]

Using mass spectrometry analyses, researchers identified a cell-surface proteoglycan called glypican-1 (GPC1), a cancer cell–derived exosome, in animal and human models with pancreatic cancer. Researchers screened patients for circulation of GPC1 and found that this screening distinguished patients with benign pancreatic disease from patients with early- and late-stage pancreatic cancer. Levels of GPC1 correlated with tumor burden and survival of pre- and postsurgical patients.

1. Mela SA, Luecke LB, Kahlert C, et al. Glypican-1 identifies cancer exosomes and detects early pancreatic cancer. *Nature*. 2015:523(7559):117-182.

FDA Strengthens Warning of Cardiovascular Events for NSAIDs

The FDA will require manufacturers of nosteroidal antiinflammatory drugs (NSAIDs) to update labels to reflect more specific information about MI and stroke risk.

Manufacturers of ibuprofen and naproxen will have to update their labels and Drug Facts boxes; manufacturers of aspirin will not have to update their labels. Citing unspecified studies, the FDA website states that patients with a history of MI are at increased risk of dying from MI-related causes if they are treated with NSAIDs. ■

David S. Boyer, MD, is a clinical professor of ophthalmology at the University of Southern California Keck School of Medicine, Department of Ophthalmology, in Los Angeles. He is a member of the Retina Today *Editorial Board. Dr. Boyer may be reached at +1-310-854-6201 or vitdoc@aol.com.*