COVID-19 increases risk of psychiatric diagnoses months later

Patients are at significantly increased risk of psychiatric conditions four months following a COVID-19 diagnosis, according to Oregon State University researchers who added that the degree of increased risk documented in their study is substantially lower compared with previous research on psychiatric disorders among post-COVID patients. The current study was published in May in World Psychiatry.

Researchers of the study, “Risk of new-onset psychiatric sequelae of COVID-19 in the early and late post-acute phase,” say their findings support previous large-scale studies on psychiatric disorders among post-COVID patients.

Recent publications have documented that a proportion of COVID-19 patients develop psychiatric symptoms during or after acute infection, researchers stated. “We investigated this risk in the context of the National COVID Cohort Collaborative (N3C) — a centralized, harmonized, high-granularity electronic health record (EHR) repository — using the largest retrospective cohort reported to date,” they indicated.

There was some earlier investigation at the beginning of the pandemic that revealed quite an increased risk of psychiatric conditions — a 50% increase following COVID of new onset of psychiatric conditions, said Lauren Chan, M.S., R.D., L.D.N., and Ph.D. candidate in nutrition at the Translational and Integrative Sciences Lab at Oregon State University and study co-author. “That got us interested us in using N3C,” Chan told MHW.

Chan and her fellow researchers matched 46,610 COVID-19 positive individuals with control patients who were diagnosed with a different respiratory tract infection (RTI) so they could compare how COVID significantly affected patients’ mental health. Each COVID-19 patient was matched with a control patient from the same institution whose age differed by no more than five years. Propensity score matching was done on 34 factors using a logistic regression model including main effect terms.

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Lauren Chan, M.S., R.D., L.D.N.

The researchers looked specifically at anxiety disorders and mood disorders. “We’re seeing an increase in the anxiety diagnosis, but not in mood disorders,” said Chan. “That’s interesting.”

Chan said that researchers did not include information on vaccination status or any treatment occurring in the acute phase of COVID.

Results

Researchers identified a statistically significant difference in the hazard rate of new-onset psychiatric sequelae between COVID-19 and RTI in the early post-acute phase (from 21 to 120 days), but not in the late post-acute phase (from 121 to 365 days). The estimated incidence proportion (as modeled on the log-hazard scale over time) of a new-onset psychiatric diagnosis in the early post-acute phase for the COVID-19 group was 3.8%, significantly higher than the 3% for the RTI group, with a hazard ratio (HR) of 1.3 (95%). The HR for new-onset mental illness in the late post-acute phase was not significant in the COVID-19 group compared with the RTI group, the study indicated.

The 0.8% difference between the COVID-19 group and the RTI group amounts to about a 25% increased relative risk. That percentage of patients might be experiencing a new onset of mental health conditions, said Chan. “The lower rates could be potentially a good thing; they are significant but [represent] potentially less risk of a mental health condition,” she said.

Implications

In summary, the researchers said they support previously published reports of an increased risk of new-onset psychiatric illness following acute COVID-19 infection. “In contrast to the nearly doubled risk identified by the earlier study, we found the relative risk to be increased by only about 25% (3.8% vs. 3% following other RTI),” they stated. “We did not find a significant difference in risk in the late post-acute phase, suggesting that the increased risk of new-onset psychiatric illness is concentrated in the early post-acute phase.”

Researchers said their results have important implications for understanding the natural history of psychiatric manifestations of COVID-19. If confirmed by independent studies, their findings suggest that health services should consider mental health screening efforts early in the post-COVID clinical course, they said.

Clinicians need to stay more in tune and follow-up with patients who may have a mental illness condition, said Chan. “We don’t want anyone to fall through the cracks and not get the care that they need.” •

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