What are risk factors for dementia after intracerebral hemorrhage?

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Larger hematoma size and location were risk factors associated with dementia after an intracerebral hemorrhage when a blood vessel in the brain bursts, according to an article published online by JAMA Neurology.

Intracerebral hemorrhage (ICH) accounts for about 15 percent of all strokes and about 50 percent of stroke-related death and disability worldwide. Progressive cognitive decline is frequent after ICH but there is limited understanding of its risk factors.

Alessandro Biffi, M.D., of Massachusetts General Hospital, Boston, and coauthors studied patients who had ICH from 2006 through 2013. There were 738 patients (average age about 74) without pre-ICH dementia who were included in the analyses of early post-ICH dementia within six months. There were 435 patients included in the analyses of delayed post-ICH dementia after six months. The authors used a telephone-based tool to assess cognitive performance.

The study reports that 140 (19 percent) patients developed dementia within six months and 139 developed dementia after six months. Larger size of the hematoma (the clotted blood) and location in the brain were associated with risk for early post-ICH dementia within six months. Educational level, mood symptoms and the severity of white matter disease were associated with risk for delayed post-ICH dementia after six months.

The authors note study limitations include the use of telephone-based cognitive assessments rather than in-person interviews.

"These findings are of immediate clinical relevance to health care professionals and patients who have experienced ICH. Assuming replication of our findings in future studies, adequate communication of the risk of cognitive decline (especially beyond the immediate period after ICH) will represent a critical issue for physicians, their patients who have experienced ICH, and patients' family and caregivers," the authors conclude.

"The study by Biffi et al provides valuable insight into the frequency of early and late dementia after ICH as well as the possible etiologic factors. The frequency of dementia reported in this study emphasizes that it may be helpful to routinely incorporate questions about cognitive status and functional recovery after ICH. For delayed dementia, in particular, it remains unclear whether post-ICH cognitive decline is truly secondary to the ICH itself or if hemorrhage was perhaps a symptom of an ongoing process that also led to cognitive decline," Rebecca F. Gottesman, M.D., Ph.D., of Johns Hopkins University, Baltimore, writes in a related editorial.

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