Letter to Editor

The Challenging Reality of Post-Craniectomy Stroke Survival: A Letter to the Editor

Dear Editor

The cohort study by Jamali and colleagues[1] provided a vital and sobering insight into the real-world outcomes of patients undergoing this life-saving, yet formidable, neurosurgical intervention at a major referral center in Shiraz, Iran. While the findings reinforced some established predictors, they also presented a stark picture that warrants careful consideration and further discussion.

The authors' investigation of both supratentorial and infratentorial strokes is a welcome expansion of the existing literature, which has heavily focused on malignant middle cerebral artery infarctions. Furthermore, the inclusion of the aphasia severity rating (ASR) is a notable strength. Communication ability is a cornerstone of a patient's quality of life and social reintegration, yet it is frequently absent from major stroke outcome studies that rely solely on functional scales such as the modified Rankin Scale (mRS).

What I found most compelling, and indeed most concerning, about this study was the stark reality of the outcomes. A mortality rate of 55% among the follow-up patients was a profound figure that underscored the devastating nature of severe ischemic stroke requiring decompressive craniectomy (DC). The authors correctly situated this high mortality in the context of their inclusive patient population, which—unlike landmark clinical trials such as DESTINY or HAMLET— did not impose strict upper age limits, thereby highlighting a crucial gap between the highly selected populations of randomized controlled trials and the older, more complex patients encountered in clinical practice. This study, therefore, serves as a crucial piece of real-world evidence, demonstrating that outcomes in the broader patient community could be significantly more challenging than trial data might suggest.

The identified predictive factors are of immense clinical relevance. A particularly potent finding with direct implications for patient counseling and clinical decision-making is the strong predictive power of the initial Glasgow Coma Scale (GCS) score.[2, 3] The clear association between a higher admission GCS and improved survival, as well as better functional and speech outcomes, reinforced the critical importance of the initial neurological state. Similarly, the negative prognostic impact of age over 60 years, a history of stroke, and concurrent COVID-19 infection provided a clearer picture of the constellation of risks that shape a patient's trajectory. The COVID-19 finding, while based on a relatively small subgroup, is a timely and important observation from the pandemic era that merits further investigation.

While the study provided a vital window into the practices and outcomes at a major referral center, its single-center design limited the generalizability of its findings to other regions or healthcare settings. Furthermore, the 15.3% loss to follow-up among survivors introduced a potential for bias, as the outcomes of these individuals remained unknown and could alter the overall picture of functional recovery. It is also worth noting that while the study found no significant difference based on the timing of surgery (within or after 48 hours), this analysis was likely underpowered, and the question of optimal timing for DC remained a critical area for ongoing research.

This work powerfully sets the stage for future investigations. There is a clear need for multi-center, prospective studies within Iran and the wider region to build upon these findings and enhance their generalizability. Such studies should continue to integrate comprehensive outcome measures, including not only functional and speech assessments but also patient-reported quality of life, cognitive function, and psychosocial well-being, to provide a holistic view of post-stroke life after DC.

In conclusion, Jamali and colleagues provided a valuable and unflinching account of outcomes following DC for ischemic stroke. Their study is a significant contribution, not only for its regional data but also for its reflection of real-world clinical challenges. It effectively underscored the profound impact of age and initial neurological status and served as a crucial reminder of the severe burden that this condition places on patients and healthcare systems.

Declaration of AI

The authors declare that no AI tools were used in the preparation of this manuscript.

Conflict of Interest: None declared.

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Haewon Byeon, DrSc, PhD

Worker's Care and Digital Health Lab, Korea University of Technology and Education (KOREA TECH), Cheonan 31253, South Korea

Correspondence:
Haewon Byeon, DrSc, PhD;
Worker's Care and Digital Health Lab, Korea University of Technology and Education (KOREA TECH), Cheonan 31253, South Korea
Tel: +82 10 74046969
Email: bhwpuma@naver.com
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