Commentary on Article 3 by Drs. Giannotta, Selman, and Dempsey

Hemicraniectomy with dural augmentation in medically uncontrollable hemispheric infarction.

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The authors of the third article report a series of 43 patients undergoing surgical decompression for medically uncontrolled intracranial hypertension due to cerebral infarction. The authors note that 72% of their patients survived, and none was in a vegetative state. They conclude that craniectomy is capable of reducing both mortality and neurological damage in patients with space-occupying cerebral infarction.

The report is of interest because of the number of cases presented and the specific details of how the authors perform the craniotomy and dural augmentation, but it does not answer the question of whether this procedure actually provides for an acceptable quality of life following hemispheric infarction. Overall, the patients presented here appear to be doing better than the purported natural history, but more information on the medical treatment protocol and the amount of time patients were treated before being declared "uncontrolled" is needed. The authors have not provided critical information including computerized tomography analysis of the size and location of the infarction before hemicraniectomy. It would be important to determine whether patients with a specific volume or location of infarction do not benefit from surgical intervention.

This manuscript is best viewed as a representative report describing how a busy group performs this particular procedure. Specific quantitative outcome measures must be analyzed in a larger number of patients to define the role of this procedure in the management of acute infarction.

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