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Letter to the Editor

External validation of the Cranioscore for prediction of early postoperative complications requiring ICU after brain tumor craniotomy

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Methods

Data from medical records of adult patients who had a craniotomy for a brain tumor between January 14th, 2020, and February 8th, 2021, were retrospectively collected, in accordance with ongoing French law on biomedical research [4]: demographic data, intraoperative management data, CranioScore data and result, complications in the first twenty-four hours after surgery.

The primary outcome was the occurrence of any complication requiring ICU stay in the first twenty-four hours after surgery…

Results

A total of 129 patients underwent brain tumor surgery during the inclusion period. Two patients were excluded from the analysis for impossible CranioScore calculation (tumor size unavailable retrospectively). The mean age was 55.7 years, with a mean ASA of 2. Seventy-one (55%) were women. Nineteen (15%) of these tumors were located in the posterior fossa, compared to 108 (85%) that were supra-tentorial. Histology was glioblastoma for 36 (28%) tumors, meningioma for 39 (31%), metastasis for 28…

Conclusion

In our neurosurgical population, CranioScore performances for predicting early LTPC are correct, but the search for a sensitivity of 100% would require a slight lowering of the threshold....

Discussion

The CranioScore was created to select patients at low risk of early LTPC, but to date, no study had evaluated its performances independently and in clinical practice. If its application must be cautious as sensitivity is not 100% in our cohort, a few selected patients being safely discharged in neurosurgery ward after a six-hour surveillance, could be the first step towards a resource-reasoned admission system, even if the number of patients with a calculated CranioScore that may favor standard ...

Contributions

All authors have made substantial contributions to this work and have approved the final version of the manuscript.

Concept and design: TB, SS, JDM, CJ, PD.

Data collection and analysis: TB, SS.

Writing original draft: TB, SS....

Disclosure of interest

The authors declare that they have no known conflict of interest related to this work....

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