Subependymoma

Subependymomas (SEs) is a rare, benign, noninvasive, slow-growing ependymal tumor located anywhere along the ventricular walls. They arise most frequently in the fourth ventricle followed by the lateral ventricle, and less frequently in the septum pellucidum, third ventricle, and spinal cord. Most SEs are found incidentally at autopsy, but some may produce clinical symptoms.

Classification

see Intracranial subependymoma.

see Spinal cord subependymoma.

Differential diagnosis

see Subependymoma Differential Diagnosis.

Case series

Zhang et al. collected survival and clinical information on patients with subependymoma diagnosis between 1975 and 2016 from the SEER database and screened them according to inclusion and exclusion criteria. Then, univariate and multivariate Cox regression analyses were used to identify significant prognostic factors, and nomograms were constructed to visualize the results. The concordance index (C-index), receiver operating characteristic (ROC), and calibration curves were used to assess the predictive ability of the nomogram. We divided the patient scores into two groups according to the high- and low-risk groups and constructed a survival curve using Kaplan-Meier analysis.

Results: A total of 731 patients were initially enrolled, including 511 (69.9%) males and 220 (30.1%) females. After screening, a total of 581 patientswere further evaluated by statistical analysis. The 5- and 10-year survival estimates were 92.0% and 81.9%, respectively. Sex (male, p=0.018; HR=2.3547, 95% CI=1.158-4.788) and age (≥56 years, p<0.001; HR=5.640, 95% CI= 3.139-10.133) were identified as independent prognostic factors for overall survival. The nomogram contained 4 prognostic factors. The C-index was 0.741, and the ROC and calibration curves also indicated the good predictability of the nomogram.

Conclusion: In this large cohort, a significant association was noted between age/sex and outcome, which could serve an important role for patient education. Even though a significant association was not found between the extent of resection and outcome, the effect of surgery on prognosis should be further explored [1)].

1)

Zhang GJ, Cheng X, Chen C, You C. Survival of patients and risk factors for subependymoma: a population-based study. Neurol Res. 2022 Sep 25:1-8. doi: 10.1080/01616412.2022.2127250. Epub

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