Imaging predictors of intracranial ependymomas

陳啓仁

Chen CJ;Tseng YC;Hsu HL;Jung SM;

摘要

Abstract

OBJECTIVE: To identify significant imaging prognostic factors for intracranial ependymomas. METHODS: This series includes 32 patients (18 male and 14 female), with an age at surgery ranging from 1 to 69 years (median, 20.5 years). The preoperative images and medical records were reviewed. The following imaging predictors, including tumor size, consistency, signal character, enhanced pattern, calcification, hemorrhage, perifocal edema, and tumor spread, were analyzed by 2 radiologists independently. Overall survival and progression-free survival were calculated by the Kaplan and Meier method. The difference in these imaging predictors in terms of overall survival and progression-free survival was tested for statistical significance by the log-rank test. Multivariate analysis was also performed using the Cox proportional hazard model. RESULTS: The results revealed that the presence of tumor spread on preoperative images was the only significant imaging predictor in overall and progression-free survivals ($P < 0.0001$). The hazard ratio of progression-free survival in the presence of tumor spread on preoperative images was 18.59 (95% confidence interval: 1.57-220.13; $P = 0.020$). CONCLUSION: The presence of tumor spread on preoperative images is the only significant imaging predictor for patients with intracranial ependymomas