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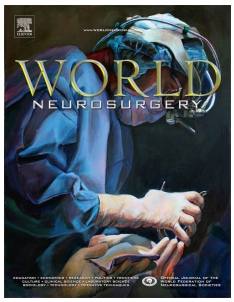

Differences in dural penetration of clival chordomas are associated with different prognosis and expression of platelet-derived growth factor receptor-β

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Differences in dural penetration of clival chordomas are associated with different prognosis and expression of platelet-derived growth factor receptor-β

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Abstract

OBJECTIVE: To compare prognosis of clival chordomas with different dural penetration, and establish the relationship between dural penetration and platelet-derived growth factor receptor (PDGFR)-β signaling pathway.

METHODS: Tumors in Type I (33 cases) showed limited dural penetration, while those in Type II (34 cases) had more serious dural penetration. Cox multivariate regression analysis was used to analyze risk factors affecting survival. Kaplan–Meier analysis measured overall survival (OS) and progression-free survival (PFS). To determine relationship between dural penetration and PDGFR-β signaling, expression of PDGFR-β, Akt, mammalian target of rapamycin (mTOR), and phosphatase and tensin homolog (PTEN) expression was compared using immunohistochemistry, quantitative reverse transcription polymerase chain reaction, and western blotting.

RESULTS: Total resection was achieved in nine cases in Type I and eleven in Type II. There were significant correlations between OS and dural penetration (*P*=0.032) and age (*P*=0.034). PFS correlated significantly with dural penetration (*P*=0.022), gender

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