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Immunohistochemical Expression of β-catenin and Epidermal Growth Factor Receptor in Adamantinomatous Craniopharyngioma

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Abstract : Introduction: Craniopharyngiomas (CPs) are rare epithelial tumors located mainly in the sellar/parasellar region. CPs have been classified histopathologically, genetically, clinically and prognostically into two distinctive subtypes: adamantinomatous and papillary variants. Aim: To examine the pattern of expression of both the β-catenin and epidermal growth factor receptor (EGFR) in surgically resected samples of adamantinomatous CP, and to asses for the possibility of using anti-EGFR in the management of ACP patients. Materials and methods: β-catenin and EGFR immunostaining was performed on paraffin-embedded tissue sections of 18 ACP cases. Result: 17 out of 18 cases (94%) of ACP exhibited strong nuclear/cytoplasmic expression of β-catenin, 15 (83%) of APC cases were positive for EGFR. Conclusion: Nuclear accumulation of β-catenin is a diagnostic hallmark of ACP. EGFR positivity in most cases of ACP could qualify the use of anti-EGFR therapy.

Keywords : craniopharyngioma, adamantinomatous, papillary, epidermal growth factor receptor, B-catenin
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