

## Immunohistochemical Expression of $\beta$ -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  $\beta$ -catenin and epidermal growth factor receptor (EGFR) in surgically resected samples of adamantinomatous CP, and to assess for the possibility of using anti-EGFR in the management of ACP patients. Materials and methods:  $\beta$ -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  $\beta$ -catenin, 15 (83%) of ACP cases were positive for EGFR. Conclusion: Nuclear accumulation of  $\beta$ -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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