

<div><div>Introduction</div><div>Craniopharyngiomas are slow-growing benign epithelial tumors that arise from remnants of Rathke’s pouch. The treatment for recurrent cystic craniopharyngiomas remains an important challenge in neurosurgery.</div><div>Methods</div><div>32 cases of CT or MRI images of patients with recurrent craniopharyngioma were collected before and after interstitial radiotherapy. The imaging data are classified according to the cystic or solid features. The level of VEGF and VEGFR-2 expression in the tumor was tested by immunohistochemistry (IHC) in all case of craniopharyngioma.</div></div>	<div><div>Results</div><div>The tumor completely disappeared 6 cases, 3 cases of tumor shrinkage&gt; 50%, 9 cases of tumor size increase &lt; 25% and 14 cases increase &gt; 25%. VEGF and VEGFR - 2 are expressed in two subtypes. VEGF and VEGFR - 2 expression in different radio- sensitive tumor was statistically difference (VEGF:z=-2.194,p=0.028;VEGFR-2:z=-2.382,p=0.017).2 cases showed no expression VEGFR - 2 were the radiosensitive type, 6 cases of severe expression of VEGFR - 2 were the radioresistant type. Tumor imaging features associated with radiotherapy reaction (z=-3.985, p=0.000). There is no relationship between VEGF expression and cystic or solid features, VEGFR-2 expression was correlated with the cystic or solid features (VEGF: X2=4.348,p=0.226; X2=11.844,p=0.008).</div></div>	<div><div>Conclusions</div><div>The results of this study indicate that craniopharyngiomas in which the expression of VEGFR - 2 is low or even none and its imaging feature is the thin capsule wall and consistent content’s signal (? and ?),are sensitive to interstitial radiotherapy; the tumors in which the expression VEGFR - 2 is high, its imaging feature is the thick capsule wall,and inconsistent content’s signal (? and ?) are resistant to interstitial radiotherapy. Therefore, the VEGF/VEGFR-2 combined with imaging features may be a useful predictor for the clinical outcome of patients with craniopharyngioma treated with 32P interstitial radiotherapy.</div></div>	<div><div>Learning Objectives</div><div>To explore the relationship among VEGF/VEGFR-2 ,imaging features and the radiosensitivity of recurrent craniopharyngiomas treated with Phosphorus-32 interstitial radiotherapy.</div><div>[Default Poster]</div></div>
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