

The Significance of p27^{KIP1}, MIB-1, bcl-2 and p53 Expression in the Differential Diagnosis of Follicular Adenoma and Carcinoma of the Thyroid Gland

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The most important differential point of follicular carcinoma from adenoma is capsular invasion or angioinvasion. However, the interpretation of capsular invasion or angioinvasion is sometimes not easy. The aim of this study is to evaluate the clinical significance of expressions of p27^{KIP1}, MIB-1, bcl-2 and p53 in differential diagnosis of follicular adenoma and carcinoma. The materials were 16 cases of follicular carcinoma and 26 cases of follicular adenoma, and immunohistochemical stains for p27^{KIP1}, MIB-1, bcl-2 and p53. In carcinoma cases, correlation between above-mentioned markers and patient's age, tumor size, infiltration pattern and metastasis was done. p27^{KIP1} labelling index (LI) of follicular carcinoma and adenoma was 4.89 ± 6.92 and 14.52 ± 9.17 , respectively, but there was no significant difference between adenoma and carcinoma ($p=0.2560$). MIB-1 LI of carcinoma and adenoma was 4.11 ± 3.89 and 0.80 ± 0.75 , respectively, and was significantly higher in carcinoma ($p=0.0000$). bcl-2 expression was seen in 2 (12.5%) of 16 carcinoma cases and 13 (50.0%) of 26 adenoma cases, and bcl-

2 expression rate was higher in adenoma than in carcinoma ($p=0.014$). In one adenoma and one carcinoma case, p53 expression was noted. In follicular carcinoma, MIB-1 LI was significantly higher in invasive carcinoma ($p=0.045$) and relatively increased in tumors larger than 3cm, showing angioinvasion and distant metastasis. But p27^{KIP1} LI was higher in cases over 40 years old ($p=0.008$) and with conspicuous capsular invasion. There were no positive correlations between expressions of MIB-1, bcl-2 and p53. MIB-1 labelling index and bcl-2 expression would be helpful for differential diagnosis of follicular adenoma and carcinoma, but p53 showed very low expression rate and no significance in differential diagnosis. p27^{KIP1} labelling index reveals decreasing tendency in carcinoma compared with adenoma, MIB-1 LI was considered as poor prognostic marker in follicular carcinoma, but p27^{KIP1} LI was higher in carcinoma cases over 40 years old and showing conspicuous capsular invasion. Further study for the significance of p27^{KIP1} labelling index in follicular neoplasms will be needed.