Expression of osteopontin in bile duct carcinoma and its relationship with drug resistance

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View from specialist: It is creative, and of certain scientific and educational value.

[ABSTRACT] Objective: To investigate the expression of osteopontin in bile duct carcinoma and its relationship with drug resistance. Methods: Data of 32 cases of bile duct cancer were and 10 cases of cholangitis patients with clinical data were retrospectively analyzed. Real-time quantitative PCR technique and immunohistochemical method (SP) determination of cholangitis were applied to detect the expression level of OPN-mRNA in normal bile duct tissues, cholangiocarcinoma tissues and paracancerous tissues. Differences in expression levels between the two groups were compared. RNA interference targeting osteopontin gene technology was applied to construct the low expression of osteopontin cell model, and to detect the inhibitory effect of 5-fluorouracil and cisplatin on the proliferation of cancer cells. Results: Expression level of OPN-mRNA were detected in normal bile duct tissues, bile duct carcinoma, carcinoma of bile duct carcinoma tissues, and significant differences were found among the three bile duct tissues (P<0.05). Significant differences in OPN-mRNA expression level in bile tissues with different stages of carcinoma, differentiation degree, occurrence of lymph node metastasis were observed showing advanced stages of carcinoma, higher differentiation degree, occurrence of lymph node metastasis were correlated with higher OPN-mRNA expression level. Expression level of OPN-mRNA in OPN gene with silencing treatment was significantly lower than that in OPN gene without silencing treatment (P<0.05). 5-fluorouracil, cisplatin inhibiting bile duct cancer cell OPN-mRNA gene silence of OPN gene expression was significantly lower than that without the silent treatment of cholangiocarcinoma cells and the difference was statistically significant (P<0.05). Conclusion: Expression level of OPN-mRNA in bile duct carcinoma tissues were significantly higher than that of normal tissue which may have certain relationship with drug resistance.

[KEY WORDS] Osteopontin; Cholangiocarcinoma; Bile duct carcinoma