Role of CD47 on Progression of Cholangiocarcinoma

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Background and Objective: Cholangiocarcinoma (CCA) is an aggressive bile duct cancer. The involvements of chronic inflammation and increased tumor-associated macrophage (TAM) have been previously reported. CD47 is widely expressed on cell surface of many cells in the body. It plays a role in self-recognition and inhibiting phagocytosis, so-called "don't eat me" signal. CD47 is overexpressed in various cancer. However, the role of CD47 in CCA is still unclear. Thus, the aimed of this study was to investigate the expression of CD47 in CCA tissues compared with other liver diseases.

Methods: CD47 expression in 98 paraffin embedded tissues that consist of CCA (n=70), hepatocellular carcinoma (HCC) (n=22) and other non-tumor liver diseases (n=6), such as hemangioma, and cirrhosis, were investigated by immunohistochemistry method. The clinico-pathological correlation was investigated.

Results: The results showed that CD47 was expressed in 79% of CCA tissues, 41% of HCC, and 50% of other diseases. However, there were intensely expressed in CCA tissues while weak expressions were detected in other liver diseases. Moreover, the expression of CD47 was associated with shorter survival of CCA patients.

Conclusion: CD47 is highly expressed in CCA when compared to other liver disease and the level of expression was correlated with the poor clinical outcome of the patient. Therefore, CD47 might play the role in host immune invasion of CCA. Further investigation needs to be elucidated.

Keywords: Cholangiocarcinoma, innate immune system, phagocytosis

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Poster

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