

3rd Yahya Cohen Lecture: The Role of the Myofibroblast-Like Cell in Hepatocellular Carcinoma—Host Defence?

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Abstract

Hepatocellular carcinoma is a common cancer in Asia with a poor prognosis. Tumour encapsulation has been shown to be a good, independent prognostic factor. The main cell in the liver responsible for extracellular matrix formation is the hepatic stellate cell, and this was investigated as the cell type responsible for encapsulation. This lecture discusses the role of hepatic stellate cells in hepatocellular carcinoma, in particular with tumour encapsulation as a host defence mechanism. The study involved four phases: (1) comparing encapsulated tumours with non-encapsulated tumours, (2) comparing with metastatic tumours to the liver, (3) creation of an animal model, and (4) investigating known cytokines with hepatic stellate cell stimulating activity. The results showed that the hepatic stellate cells were responsible for tumour encapsulation and that this was impaired in non-encapsulated tumours and in metastatic tumours. A successful animal model was created which allowed further work. However, the known cytokines that normally stimulate hepatic stellate cells were not shown to be involved in tumour encapsulation, suggesting that an unknown factor may be involved.

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