Dokumenttyp: journal article

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Titel des Beitrags:
Major histocompatibility complex class I expression impacts on patient survival and type and density of immune cells in biliary tract cancer.

Abstract:
Biliary tract cancers (BTC) are rare malignant tumours with a poor prognosis. Previously, we have presented a detailed characterisation of the inflammatory infiltrate in BTC. Here, we analysed the impact of the expression of major histocompatibility complex class I (MHC I) on patient survival and the quantity, as well as the quality of tumour-infiltrating immune cell types in BTC. MHC I expression was assessed semi-quantitatively in 334 BTC, including extrahepatic (n=129) and intrahepatic cholangiocarcinomas (n=146), as well as adenocarcinomas of the gallbladder (n=59). In addition, 71 high-grade biliary intraepithelial lesions (BilIN 3) were included. Results were correlated with data on antitumour inflammation and investigated with respect to their association with clinicopathological variables and patient survival. BTC showed a wide spectrum of different MHC I expression patterns ranging from complete negativity in some tumours to strong homogenous expression in others. In BilIN 3, significantly higher MHC I expression levels were seen compared to invasive tumours (P=0.004). Patients with strong tumoural MHC I expression had a significantly higher overall survival probability (median
survival benefit: 8 months; P=0.006). MHC I expression strongly correlated with the number of
tumour-infiltrating T-lymphocytes (CD4(+) and CD8(+) and macrophages. Differences of MHC I
expression predict patient outcome and show correlations with specific components of the
inflammatory infiltrate in BTC. These findings contribute to a better understanding of immune
response and immune escape phenomena in cholangiocarcinogenesis.