

## Immunoglobulin G4 (IgG4)-positive plasma cell infiltration is associated with the clinicopathologic traits and prognosis of pancreatic cancer after curative resection

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Interactions between pancreatic cancer cells and inflammatory cells play crucial roles in the biological behavior of pancreatic cancer. Abundant infiltration of immunoglobulin G4 (IgG4)-positive plasma cells in the pancreas is the most significant feature of autoimmune pancreatitis; however, the clinical significance of IgG4-positive plasma cell infiltration in pancreatic cancer has not previously been reported. Herein, we analyzed intratumoral and peritumoral infiltrations of IgG4-positive plasma cells in 95 pancreatic cancer cases after curative resection. The correlations between IgG4-positive plasma cell infiltration and the clinicopathologic traits and overall survival of pancreatic cancer were investigated. IgG4-positive plasma cells were found in 86% of tumor tissue samples compared with 69% of peritumoral tissue samples ( $P=0.0063$ ). The high-level infiltration of intratumoral IgG4-positive plasma cells was positively correlated with poor histological grade ( $P=0.017$ ). The high-level infiltration of intratumoral IgG4-positive plasma cells was significantly correlated with worse prognosis ( $P=0.01$ ) in multivariate analysis. We further found that intratumoral M2 polarized tumor-associated macrophages (TAMs) were positively, linearly correlated with IgG4-positive plasma cells. In conclusion, IgG4-positive plasma cell infiltration is correlated with the clinicopathologic traits and overall survival of pancreatic cancer. High-level intratumoral infiltration of IgG4-positive plasma cells is an independent predictor for poor overall survival in pancreatic cancer patients after curative resection. Intratumoral M2 polarized TAMs probably induce IgG4-positive plasma cells.

### Biography

Qiaofei Liu has completed his MD from School of Medicine, Nankai University. He is currently an Attending Surgeon of General Surgery Department in Peking Union Medical School College Hospital. His main interests are precise surgery and integrated treatments for pancreatic cancer. He has published more than 10 papers in reputed journals and has been serving as an Editorial Board Member of 3 international journals.

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