

中文題目：病例報告：癌症免疫療法造成之糖尿病及糖尿病酮酸血症

英文題目：Immune checkpoint inhibitor-induced diabetes mellitus and diabetic ketoacidosis: a case report

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Introduction: The immunotherapy, specifically checkpoint inhibitors, has resulted in unexpected adverse events. Immune checkpoint inhibitor-induced diabetes mellitus can develop, with diabetic ketoacidosis and low or undetectable C-peptide level.

Case presentation: A 40-year-old man with squamous cell carcinoma of left palate received immunotherapy with Nivolumab for tumor recurrence. Twenty weeks after the treatment, he developed diabetic ketoacidosis. Glucagon stimulation test showed C-peptide level at 0 minutes and 6 minutes were both 0.01 ng/ml. Due to rapid deterioration of pancreatic β -cell function, immune checkpoint inhibitor-induced diabetes mellitus was impressed.

Discussion: The immune checkpoint inhibitor-induced diabetes mellitus is caused by the destruction of pancreatic β cells mediated by autoreactive T cells. PD-L1 is expressed in pancreatic islet cells, and the interaction PD-1/PD-L1 has been postulated to play a protective role by inhibiting T cell activation.

Conclusion: This case demonstrates that blood glucose monitoring is necessary in patients receiving immune checkpoint inhibitor.