

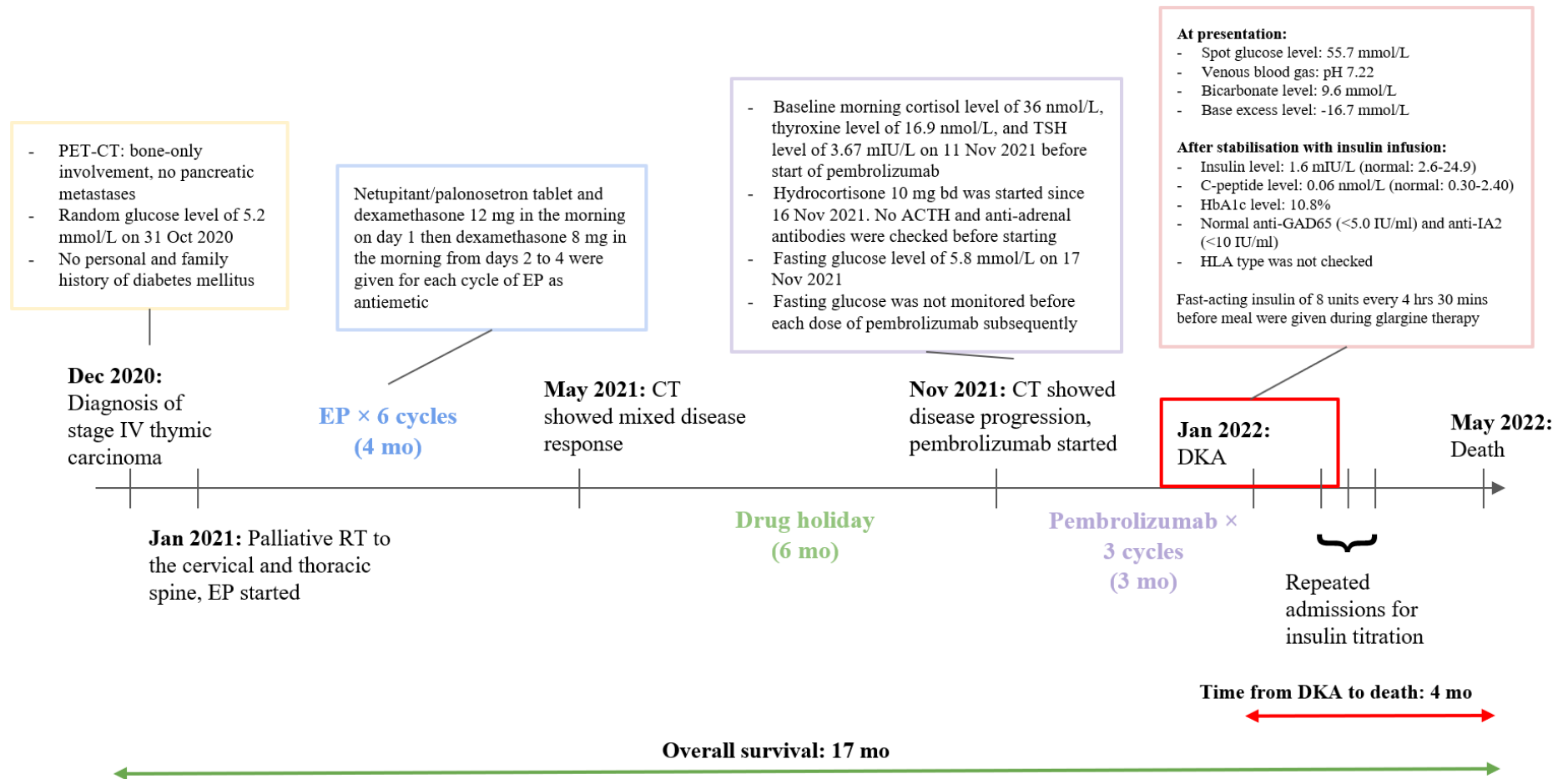


Supplementary material

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Supplement to: Wong HCY, Hung HF, Kwok CH. Diabetic ketoacidosis after pembrolizumab treatment for thymic carcinoma and no known diabetes mellitus: a case report. Hong Kong J Radiol. 2024 Sep;27(3):e171-5 | Epub 19 Sep 2024. <https://doi.org/10.12809/hkjr2317728>.

Supplementary Figure 1. Patient's timeline of events.



Abbreviations: ACTH = adrenocorticotrophic hormone; bd = twice a day; CT = computed tomography; DKA = diabetic ketoacidosis; EP = etoposide and cisplatin; HbA1c = glycated haemoglobin; HLA = human leukocyte antigen; IV = intravenous; PET-CT = positron emission tomography-computed tomography; RT = radiotherapy; TSH = thyroid-stimulating hormone.

Supplementary Figure 2. Workflow for assessment of hyperglycaemia during immunotherapy.

Pre-treatment: evaluate for preexisting autoimmune diseases and paraneoplastic syndromes, as well as baseline fasting glucose level +/- HbA1c testing

During treatment: monitor RG level before each dose, optimise preexisting T2DM



RG level >13.9 mmol/L¹

1. Screen for acute diabetic complications: blood for electrolytes, osmolarity, renal function, blood gas, and beta-hydroxybutyrate; urine for ketones
2. C-peptide level

Low C-peptide level



CIADM

1. Initiate insulin therapy
2. Consult endocrinologist
3. Admit and treat DKA if present
4. Consider test for autoantibodies
5. Continue immunotherapy after glucose levels stabilise

Normal C-peptide level



Not CIADM

1. Work up for other causes of hyperglycaemia
2. If worsening T2DM: dietary advice, oral antiglycaemic agents +/- initiate insulin
3. Continue immunotherapy

Abbreviations: CIADM = immune checkpoint inhibitor-associated autoimmune diabetes mellitus; DKA = diabetic ketoacidosis; HbA1c = glycated haemoglobin; RG = random glucose; T2DM = type 2 diabetes mellitus.

Reference

1. Schneider BJ, Naidoo J, Santomasso BD, Lacchetti C, Adkins S, Anadkat M, et al. Management of immune-related adverse events in patients treated with immune checkpoint inhibitor therapy: ASCO Guideline update. J Clin Oncol. 2021;39:4073-126.