CR-GE-33

SODIUM-GLUCOSE CO-TRANSPORTER 2 INHIBITOR (SGLT2i)-INDUCED HYPERCALCEMIC ENCEPHALOPATHY IN AN ELDERLY PATIENT: A CAUTIONARY TALE IN GERIATRIC PATIENTS

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INTRODUCTION

SGLT2i is currently being advocated as preferred medication in high-risk patients with diabetes. However, elderly patients are prone to known and less-known side effects from this medication. Moreover, polypharmacy can contribute to higher incidence of adverse effects from SGLT2i.

CASE

An 80-year-old Thai woman with uncontrolled type 2 DM, hypertension and CKD stage 3 (baseline GFR 32 mL/min/1.73 m^2) treated with insulin, linagliptin, dapagliflozin and hydrochlorthiazide presented with altered mental status. Dapagliflozin was prescribed 4 months earlier to control her diabetes (A1C 8.1%). Laboratory work-up at initial admission showed acute kidney injury (GFR 21 mL/min/1.73 m^2) and severe hypercalcemia of 13.3 mg/dL. Further investigations included low levels of PTH of 7 pg/ml (reference range 15-65), normal 25-hydroxy vitamin D of 31 ng/ml (reference range 30-100), and a normal level of TSH of 2.3 mU/ml (reference range 0.3-4.2). saline hydration led to improvement in hypercalcemia, renal function, and mental status over 48 hours. She is currently stable at 12 months after discharge.

CONCLUSION

SGLT2i is a unique and promising anti-diabetic agent. However, post-marketing surveillance data revealed various unexpected adverse events from this medication. Although the exact mechanisms are unclear, SGLT2i may predispose patients to hypercalcemia from various mechanisms including dehydration from osmotic diuresis, increased intestinal calcium absorption due to inhibition of SGLT1, and impact of concomitant medications especially diuretics. Clinicians must take greater care when prescribing SGLT2i to elderly patients.

KEY WORDS

SGLT2i, hypercalcemia, encephalopathy

CR-GE-34

EMPTY SELLA SYNDROME IN A PATIENT WITH TENOFOVIR-INDUCED FANCONI'S SYNDROME: DIAGNOSIS BY SERENDIPITY

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INTRODUCTION

Empty sella syndrome (ESS) is generally asymptomatic, incidentally detected, and usually requires no specific treatment. However, hypopituitarism is present in some ESS patients.

CASE

A 63-year-old female asymptomatic patient with HIV on long-term antiretroviral treatment presented with progressive weight loss of 22 kg over 18 months prior to hospitalization from tenofovir-induced Fanconi's syndrome. Prior to hospitalization, extensive evaluation was carried out and did not yield any identifiable causes of weight loss. After hospitalization, polyuria and normoglycemic glucosuria from Fanconi's syndrome were identified but subsequently, a diagnosis of panhypopituitarism was made after hormonal evaluation studies. An MRI of pituitary gland revealed thinned pituitary gland with normal size of sella. She denied history of postpartum hemorrhage and had regular menstruation until menopause. Partial ESS with hypopituitarism was finally diagnosed and oral prednisolone with thyroid hormone were given. She gradually regained weight and well-being after tenofovir discontinuation and hormone replacement. Full normalization of proximal tubulopathy markers was obtained within two months of tenofovir discontinuation.

CONCLUSION

Antiretroviral therapy helps people with HIV live longer but sometimes these medications can cause late side effects as presented in our patient. Apart from a straightforward diagnosis, patients can have different diseases to explain their symptoms. Physicians should consider the possibility of adrenal insufficiency in the broad differential diagnoses of unexplained weight loss.

KEY WORDS

empty sella syndrome, Tenofovir-induced Fanconi's syndrome, HIV