Adrenal

ADRENAL - CORTISOL EXCESS AND DEFICIENCIES

Efficacy and Safety of Prenatal Dexamethasone Treatment in Offspring at Risk for Congenital Adrenal Hyperplasia Due to 21-Hydroxylase Deficiency

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Objective: To assess the efficacy and safety of prenatal dexamethasone treatment in offspring at risk for congenital adrenal hyperplasia. **Methods**: MEDLINE, EMBASE, the Cochrane Library, the clinicaltrials.gov website databases was systematically searched from inception through March 2019. WMD and SMD with 95%CIs were calculated using random or fixed effects models. **Results**: There was a significant reduction of virilizationin the DEX-treated group (WMD: -2.39, 95%CI: -3.31,-1.47). No significant differences were found in newborn physical outcomes for birth weight (WMD: 0.09, 95%CI: -0.09, 0.27) and birth length (WMD= 0.27, 95%CI: -0.68, 1.21). Concerning cognitive functions, no significant differences in the domains of psychometric intelligence (SMD: 0.05, 95%CI: -0.74, 0.83), verbal memory (SMD: -0.17, 95%CI: -0.58, 0.23), visual memory (SMD: 0.10, 95%CI: -0.14, 0.34), learning (SMD: -0.02, 95%CI: -0.27, 0.22), verbal processing (SMD: -0.38, 95%CI: -0.93, 0.17). Regarding behavioral problems, no significant differences in the domains of internalizing problems (SMD: 0.16, 95%CI: -0.49, 0.81), externalizing problems (SMD: 0.07, 95%CI: -0.30, 0.43), total problems (SMD: 0.14, 95%CI: -0.23, 0.51). With respect to temperament, no significant differences in the domains of emotionality (SMD: 0.13, 95%CI: -0.79, 1.05), activity (SMD: 0.04, 95%CI: -0.32, 0.39), shyness (SMD: 0.25, 95%CI: -0.70, 1.20), sociability (SMD: -0.23, 95%CI: -0.90, 0.44). **Conclusions**: Prenatal DEX treatment reduced virilization with no significant differences in newborn physical outcomes, cognitive functions, behavioral problems, temperament. The results need to be interpreted cautiously due to the existence of limitations.

Diabetes Mellitus and Glucose Metabolism

TYPE 1 DIABETES MELLITUS

Diabetes Mellitus Induced by Programmed Cell Death-1 (PD-1) Inhibitors: A Case Report

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SAT-680

Introduction:
Immune checkpoint blockade has revealed a remarkable success in the treatment of a range of cancer types. Immune-related adverse events on the endocrine system may be permanent and carry high morbidity and mortality.
Case:
A 35-year-old black male presented to the ED with acute onset diffuse abdominal pain, along with nausea and vomiting. Review of systems was positive for polyuria and polydipsia. The examination was unremarkable apart from a sizeable fungating lesion of the left lower extremity by the ankle measuring 12 x 8 cm. Investigations indicated blood sugars around 600, serum bicarbonate of 19 mEq/L, an anion gap of 19 mEq/L, serum BHB was elevated, and lactate within normal. The patient was diagnosed with DKA, started on an insulin drip, and admitted to the ICU.
Our patient had no known personal or family history of diabetes. A few years ago, he had suffered from a non-healing chronic ulcer in his left ankle secondary to a motor vehicle accident. Three months ago, he had been diagnosed with a well-differentiated squamous cell carcinoma, arising from his chronic non-healing ulcer. One month ago, He had started Pembrolizumab 200mg Intravenously, and he had received a total of two cycles, the last cycle was one week ago. Shortly after he presented to the ED with the above chief complaint.
He made a complete recovery and further investigations revealed HbA1c of 7.2%, C-peptide levels of <0.1 ng/mL, which supports the diagnosis of T1-DM. He was discharged home, and Pembrolizumab was continued.
Conclusion:
Autoimmune T1-DM has been reported after receiving anti-PD-1 therapy. In a recent study included 27 patients with a variety of solid-organ cancers, and all had received anti–PD-1 antibodies treatment, autoimmune, T1-DM diabetes occurred in close to 1% of patients (1). A systematic review and meta-analysis were conducted recently showed that people developed T1-DM within three months of the initial PD-1 inhibitor exposure. Since patients treated with anti–PD-1 antibodies can present with life-threatening DKA, a high index of suspicion is crucial as early detection is the key to successful treatment and prevention of morbidity and mortality. It remains unclear if it is safe to restart the checkpoint inhibitor after an immune-related adverse event, and further studies are necessary in order to resolve this dilemma. A recent retrospective study included patients with melanoma showed that anti–PD-1 therapy could be safely resumed after severe adverse event requiring immunosuppression (2).
References:
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Bone and Mineral Metabolism

BONE AND MINERAL CASE REPORTS I

Reversible Suppression of Serum 1,25-Dihydroxyvitamin D in Williams Syndrome

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