Central Diabetes Insipidus: An Unusual Presentation of Hodgkin’s Lymphoma

Arinzechukwu Uzoechina MD*, Siddhartha Kattamanchi MD*; Ram Pathak MD†
Departments of Medicine* and Endocrinology†, Marshfield Clinic, Marshfield, WI

Central diabetes insipidus is associated with lung cancer, leukemia and non-hodgkin’s lymphoma. We present an unusual case of Hodgkin’s lymphoma presenting as central diabetes insipidus (CDI).

Case Description

A 25yr old male presented to the hospital with a one month history of polyuria, polydipsia and nocturia. He had a significant history of weight loss and no history of diabetes mellitus, seizures, head trauma, neurosurgery, blurring of vision, lithium therapy. He has a family history of diabetes mellitus type II. He has no known family history of diabetes insipidus.

Examination revealed stable vital signs, absence of pallor, jaundice, volume depletion or peripheral lymphadenopathy. Lungs were clear on auscultation. Heart sounds were normal. Abdomen was nontender and without palpable organomegaly.

Further evaluation revealed a normal calcium and fasting blood sugar. Urinalysis was unremarkable. Chest x-ray revealed a superior mediastinal mass. CT scan of the chest and abdomen and showed extensive lymphadenopathy involving the mediastinum, axillae and porta hepatis. Bilateral pulmonary nodules and splenomegaly were noted. Lymph node biopsy revealed Hodgkin’s lymphoma. PET scan showed extensive metastasis.

Water deprivation test revealed maximum serum and urine osmolalities of 306mOsm/L and 361mOsm/L respectively. Post DDAVP, maximum urine osmolality was 685mosm/L. Metastatic hodgkin’s lymphoma (confirmed by lymph node biopsy) was thought to be the most probable cause. Post-treatment images (figures 2A & 2B) showed reduction in size of the pituitary and the infundibulum.

Discussion

Central diabetes insipidus (CDI) is very uncommon in the United States.1 Causes include autoimmune disease, neurosurgery, head trauma, sarcoidosis, neoplasm.1 Lung cancer, non-Hodgkin’s lymphoma and leukemia are associated with CDI. Central diabetes insipidus may be the initial presentation of metastatic disease in some patients. Here we report a rare case of Hodgkin’s lymphoma presenting as CDI. Therefore malignancies should be considered in patients with central diabetes insipidus.

Reference