

Clinical Image

Intense Pituitary 18F-FDG Uptake of Patients with Diabetes Insipidus

Soydal et al. 18F-FDG Uptake in Diabetes Insipidus

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Maximum intensity projection (MIP) 18F-FDG PET (Figure 1A) images of a 6 years old patients with the history of central diabetes insipidus (CDI) and suspicion of Langerhans cell histiocytosis revealed pathological uptake in cranium, thorax and left pelvic region. Fused transaxial images demonstrated pathological uptakes were located on the pituitary gland (SUVmax:9.8) (Figure 1B), soft tissues on the anterior mediastinum (SUVmax:10.7) (Figure 1C) and on the left acetabular region (SUVmax:10.6) (Figure 1D). 18F-FDG uptake on the pituitary gland with patients with CDI related with different primary pathologies have been reported before (2,5-7). CDI has distinct etiologies in accordance with age(1,3,6). Diagnosis of CDI in children is straightforward when CDI follows a recent history like meningitis, neurosurgery, trauma or known disease like Langerhans cell histiocytosis (LCH)(3,6). LCH and its central nervous system (CNS) involvement is the most common systemic disease that the causes of CDI in children(4,5). CDI might be the first sign of so far undiagnosed extracranial disease and 18F-FDG PET-CT has an excellent potential to detect extracranial symptoms of these conditions (7). In this case we aimed to share our experience of the intense 18F-FDG uptake on the pituitary gland in patients with CDI related with LCH involvement.

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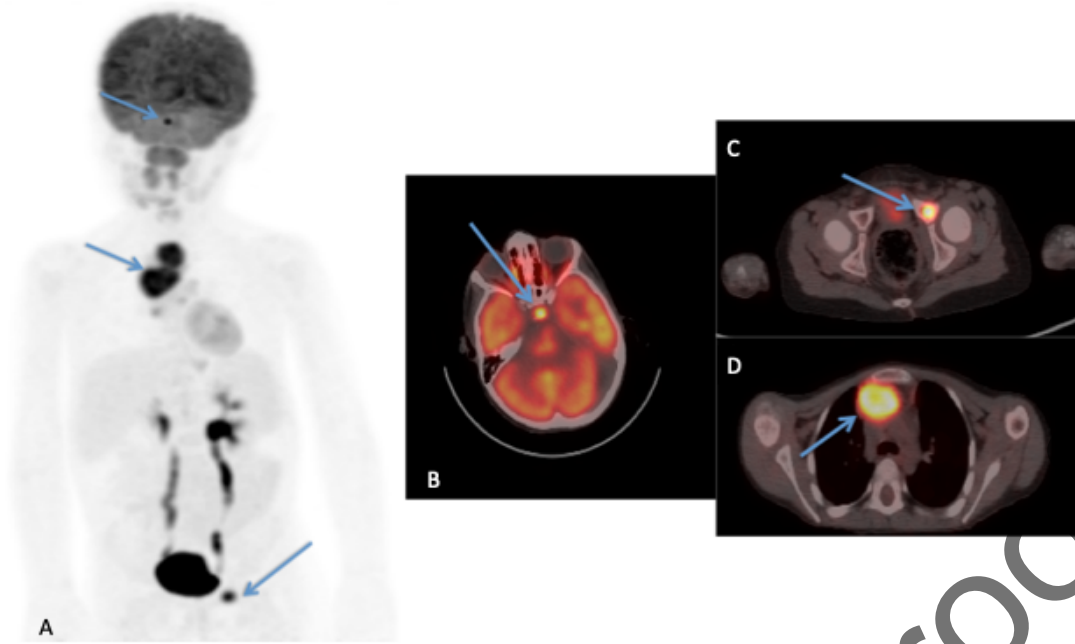


FIG. 1. (A) Maximum intensity projection (MIP) 18F-FDG PET images of the patient revealed pathological uptake in cranium, thorax and left pelvic region. (B) Fused transaxial images demonstrated pathological uptakes were located on the pituitary gland (SUVmax:9.8), (C) soft tissues on the anterior mediastinum (SUVmax:10.7) and (D) on the left acetabular region (SUVmax:10.6).

Uncorrected Proof