

Peer Review File

Article information: <http://dx.doi.org/10.21037/jxym-20-45>.

Reviewer A:

Comment 1. LCH is a rare disease, which can involve multiple tissues and organs. CDI is the most common symptom when LCH accumulates pituitary stalk. This patient has been diagnosed with CDI for 8 years, during which many skeletal lesions had been occurred, but MRI of sellar region has not been reexamined. It would be better to discuss what lessons we could learn from this case.

Reply 1: we have modified our text as advised.

Changes in the text: See Page 3, line 124-125; Page 3, line 138-143.

Comment 2. Please supplement the followings: Did the symptoms of CDI improved after 6 months of treatment with prednisone (30 mg/d) and nonsteroidal anti-inflammatory? Is there any changes in MRI of pituitary stalk?

Reply 2: The symptoms of CDI did not change after treatment of prednisone (30 mg/d) and nonsteroidal anti-inflammatory (Mobic 7.5mg/d) during the follow-up. During the 1-month follow-up, the left hip pain was significantly relieved and she could walked normally, and she stopped Mobic 2 months later. Now she is orally administered with desmopressin 0.1mg tid. There is no obvious changes in MRI pituitary stalk at the 5-month follow-up.

Changes in the text: We have modified our text as advised. See Page 2, line 84-87; we add the MRI Figure of 5-month follow-up in figure 1C.

Comment 3. Please use arrows to indicate the lesion site in Fig 1 and Fig 2.

Reply 1 : We have modified our Figures as advised.

Changes in the text: See Figure 1 and Figure 2.

Reviewer B:

Comment 1. In 2018, the pituitary MRI showed that the adenohypophysis was flat. Please provide the test results of thyroid function, ACTH, cortisol and sex hormone, as well as the menstrual history of the patient, so as to determine whether there was anterior pituitary hypofunction.

Reply 1 : The hormone levels of anterior pituitary showed hypofunction of thyroid function and hypothalamus pituitary gonad axis, but her adrenocortical hormone and cortisol circadian rhythm were normal.

1.1 Thyroid function:

She was diagnosed "hypothyroidism "in 2015(TSH2.18uIU/ml, FT3 3.01pmol/L, FT4 7.37pmol/L), and was treated with replacement dose of levothyroxine sodium tablets (37.5ug qd). In 2018 after the treatment, the thyroid hormone levels were: TSH3.5uIU/ml, FT3 3.32pmol/L, FT4 13.36pmol/L. TPO-Ab > 600IU/ml, TG-Ab262.8 IU/ml, TRAb0.77

IU/ml (replacement dose of levothyroxine sodium tablets 50ug qd), thyroid color ultrasound: diffuse enlargement of thyroid parenchyma, multiple thyroid parenchymal nodules: TI-RADS3.

### 1.2 Menstrual and childbearing histories:

he patient got married when she was 22 years old, G1P0. Her menarche age was 12 She previously had regular menstrual periods, which usually lasted 4-7 days, and the menstrual cycle was 28 - 30 days. Amenorrhea occurred when she was 25-year-old (2011), and oral medication was applied to establish an artificial cycle.

The hormone levels were as follows: FSH, 1.96 IU/L; LH, 1.75 IU/L; E, 254.25 pmol/L, P, 0.23 ng/ml; T, 0.356 ng/ml; PRL, 34.59 ng/ml.

### 1.3 Serum ACTH, cortisol levels and cortisol circadian rhythm were normal.

2018.12.1	8am	4pm	0am
Cortisol ug/dl	15.59	7.32	1.02
ACTH pmol/l	9.51	6.6	1.47

Changes in the text: we have added some data: see Page 1, line 31-34; Page 2, line 66-71.

Comment 2. Please describe the urine volume of the patient after taking dapressin, and provide the urine specific gravity and urine osmotic pressure results.

Reply 1 : we have modified our text as advised.

Changes in the text: See Page 2, line 87-89.

Comment 3. Figure 1 B shows "abnormal enhancement of tubercle of pituitary stalk and absence of superior margin of pituitary". However, there is no significant difference between the signal of pituitary stalk nodule in the picture and the surrounding tissue, which does not show abnormal enhancement. It is suggested to replace the more typical picture. It would be more appropriate to change "the absence of the superior margin of the pituitary" to "the anterior lobe of the pituitary is flat and the vacuole of the sella may be".

Reply 1 : We have modified our text as advised.

Changes in the text: See Page 2, line 73-76, and Figure 1B.

Comment 4. Please mark T1 or T2 in the MRI picture.

Reply 1 : we have modified our Figures as advised.

Changes in the text: See Figure 1 and Figure 2.

Comment 5. As far as possible, provide the imaging pictures of the patients after taking prednisone treatment, especially whether the pituitary stalk has changed.

Reply 1 : There is no obvious changes in MRI pituitary stalk at the 5-month follow-up. .

Changes in the text: We have modified our text as advised: See Page 2, line 85-87. We add the

MRI Figure of 5-month follow-up in Figure 1C.