



CASE REPORT

Late Discovery of Pituitary Stalk Interruption

Jerbi Saida, Ben Fatma Abderraouf^{*} , Souissi Marouen  and Ikbel Ammar

Department of Radiology, Taher Sfar Hospital, Tunisia

***Corresponding author:** Ben Fatma Abderraouf, Department of Radiology, Taher Sfar hospital, Mehdia, Tunisia



Clinical History

A 25-year-old male patient presented with delayed puberty, short stature.

Hormonal assays showed anterior pituitary insufficiency.

Imaging Findings

MR imaging showed a small-sized anterior pituitary gland pituitary (height measured 3 mm) with interrupted pituitary stalk (Figure 1) and an absent posterior pituitary gland (Figure 2).

Discussion

- Pituitary stalk interruption syndrome [1,2] is a congenital abnormality of the pituitary gland consisting of the triad of thin or interrupted pituitary stalk, small or absent anterior pituitary gland, and an absent or ectopic posterior pituitary gland. It is characterised by deficiencies in the hormones secreted by the anterior pituitary gland, however mild hyperprolactinaemia may be seen. This is secondary to dopamine being unable to reach the pituitary and inhibit the lactotrophs as



Figure 1: Postcontrast coronal T1-weighted image shows interrupted proximal pituitary stalk (arrow) and small anterior pituitary measuring 3 mm in height.

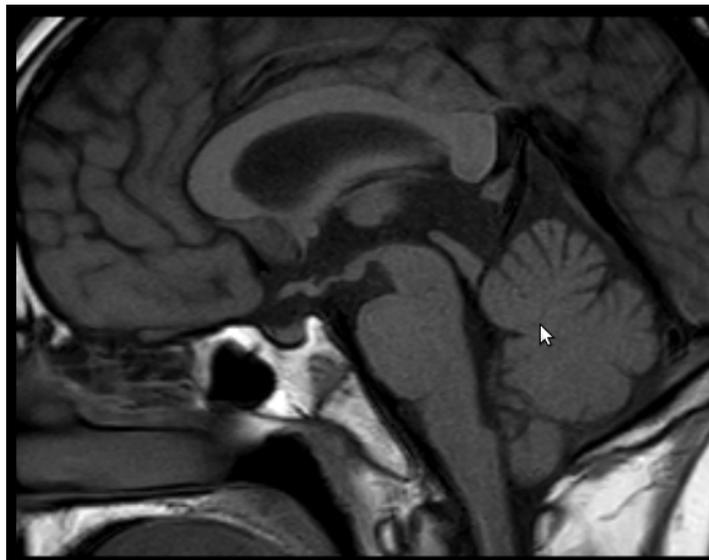


Figure 2: Sagittal unenhanced T1-weighted image shows the absence of the posterior pituitary.

there is no pituitary stalk.

- Clinically, it is characterised by delayed puberty, short stature, micropenis, cryptorchidism and visual defects, hypoglycemia.

- MRI is required for the diagnosis and demonstrates:

- a) Absent/hypoplastic anterior pituitary gland.
- b) Thin or absent infundibulum.

Ectopic or absent posterior pituitary

Treatment consists of hormonal replacement.

Pituitary stalk interruption syndrome is a very rare congenital syndrome, characterised by a classic triad of anterior pituitary hypoplasia or aplasia, ectopic or aplasic posterior pituitary and interrupted pituitary stalk.

- a) The pathogenesis of this condition is still unknown.

- b) Growth retardation is the most common presentation in older children and adults. Most patients lack sexual development.

Final Diagnosis

Pituitary stalk interruption syndrome.

Differential Diagnosis List

Craniopharyngioma, Histiocytosis, Pituitary Macroadenomas.

References

1. Gutch M, Kumar S, Razi SM, Saran S, Gupta KK (2014) Pituitary stalk interruption syndrome: Case report of three cases with review of literature. *J Pediatr Neurosci* 9: 188-191.
2. Gosi SK, Kanduri S, Garla VV (2019) Pituitary stalk interruption syndrome. *BMJ Case Rep* 12: e230133.