

Pituitary Stalk Interruption Syndrome: A Diagnosis Not to be Missed

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Pituitary stalk interruption syndrome (PSIS) is a rare congenital abnormality of the pituitary responsible for anterior pituitary deficiency. It is characterized by a triad of thin or interrupted pituitary stalk, small or absent pituitary gland, and ectopic posterior pituitary location [1].

The cause of PSIS is still unknown and many theories are proposed like mutations in the genes involved in pituitary embryogenesis or perinatal asphyxia [2].

Most cases of stalk transection syndrome present with growth

retardation in childhood in association with GH deficiency. Posterior pituitary function is intact.

MRI is diagnostic showing the characteristic triad (**Figure 1**):

- Ectopic posterior pituitary (A). The ectopic neurohypophysis is most commonly seen in the infundibular recess or the hypothalamus.
- Thin or absent pituitary stalk (B): evaluated in postcontrast images
- Anterior pituitary hypoplasia (C)

Treatment consists of hormonal replacement.

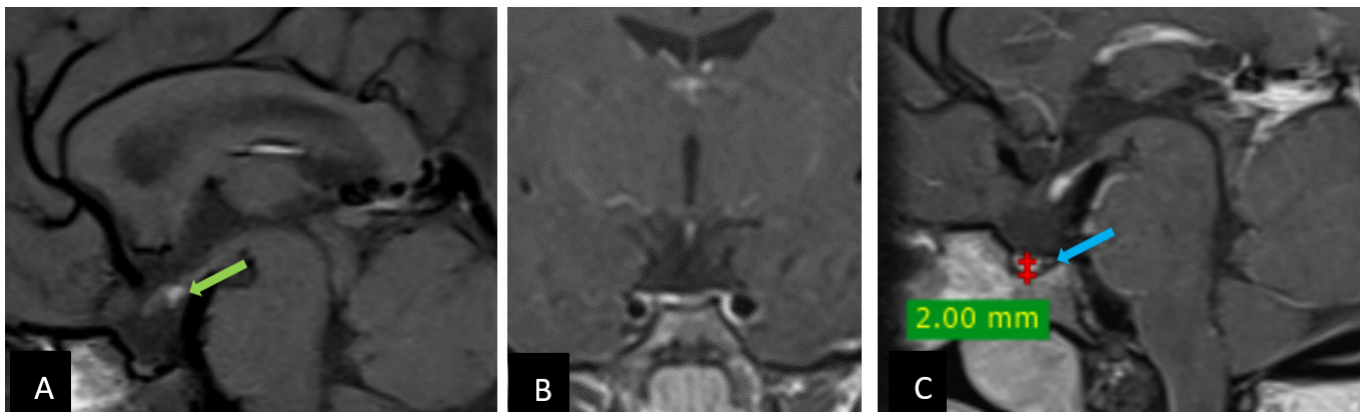


Figure 1: Hypothalamic-pituitary MRI of a 5 years old girl with short stature and growth hormone deficiency:

A: Sagittal T1 weighted image showing ectopic posterior pituitary bright spot (green arrow).

B: Postcontrast coronal T1-weighted image showing non-visualization of the pituitary stalk.

C: Postcontrast Sagittal T1 weighted image showing anterior pituitary measuring 2 mm in height (blue arrow).

References

1. Kulkarni C, Moorthy S, Pullara S, Rajeshkannan R, Unnikrishnan A. Pituitary stalk transection syndrome: Comparison of clinico-radiological features in adults and children with review of literature. Indian Journal of Radiology and Imaging, 2012; 22(3): 182.
2. Loachimescu AG, Hamrahian AH, Stevens M, et-al. The pituitary stalk transection syndrome: multifaceted presentation in adulthood. Pituitary, 2013; 15(3): 405-411.