

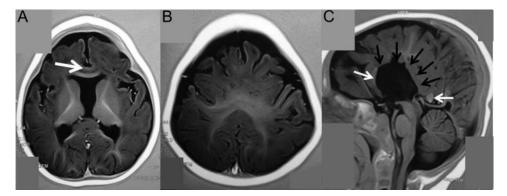
Section Editor Mitchell S.V. Elkind, MD, MS

# Teaching Neuro *Images*: Syntelencephaly

Middle interhemispheric fusion

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Correspondence & reprint requests to Dr. Srivastava: drdeepsrivastava@rediffmail.com Figure Syntelencephaly: MRI appearance



Axial T1-weighted inversion recovery (IR) sequence shows absence of septum pellucidum with fusion of the cingulate gyrus (white arrow) (A) and continuous white matter across middle part of interhemispheric region (B). Sagittal T1-weighted IR sequence (C) with absence of midbody of corpus callosum (black arrows) and presence of genu and splenium (white arrows).

An 8-month-old infant presented to our hospital with global developmental delay. MRI brain findings revealed the diagnosis of syntelencephaly (figure, A–C).

Syntelencephaly, a distinct subset of holoprosencephaly, is a rare brain malformation in which the hemispheric fusion does not occur at rostral forebrain but rather across posterior frontal region; hence the alternative term "middle interhemispheric fusion" or "dorsal lobar holoprosencephaly." The clinical presentations can vary, with mental defect or global developmental delay being common.<sup>2</sup> The septum pellucidum is absent in all cases. Unlike classic

holoprosencephaly, typically the midbody of corpus callosum is deficient in this disorder.

### **AUTHOR CONTRIBUTIONS**

Dr. Arora: study concept and design, drafting and revision of manuscript. Dr. Kumar Sahoo: drafting and revision of manuscript. Dr. Srivastava: study concept and design, drafting and revision of manuscript, guarantor of study.

### REFERENCES

- Barkovich AJ, Quint DJ. Middle interhemispheric fusion: an unusual variant of holoprosencephaly. AJNR Am J Neuroradiol 1993;14:431–440.
- Coleman LT, McCubbin JP, Smith LJ, Reddihough DS, Gardner RJM. Syntelencephaly presenting with spastic diplegia. Neuropediatrics 2000;31:206–210.



## Teaching Neuro Images: Syntelencephaly: Middle interhemispheric fusion

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