History
Three year old patient with seizures.

Diagnosis
Band Heterotopia

Discussion
Band Heterotopia typically presents in childhood due to developmental delay and mixed seizures. There is a female preponderance due to the location of DCX on the X chromosome. On imaging, there is a homogeneous band of gray matter located between the ventricles and the cerebral cortex and separated from both by layers of white matter. Overlying cortex is usually normal in thickness and there is variability in the degree of shallowness of the sulci. This may be mistaken for myelinating white matter in a neonate unless the cell sparse zone is visible.

Findings
A thick band of gray matter (parallels the intensity of gray matter on all sequences) separated from the outer cortex and ventricles by layers of white matter. The outer cortex shows subjective mildly shallow sulci.

Reference
Barkovich, pp.356-358.
Disclaimer
This teaching site is partially funded by an educational grant from GE Healthcare and Advanced Radiology Services, PC. The material on this site is independently controlled by Advanced Radiology Services, PC, and GE Healthcare and Spectrum Health have no influence over the content of this site.

Content Download Agreement
The cases and images on this website are owned by Spectrum Health. Permission is granted (for nonprofit educational purposes) to download and print materials to distribute for the purpose of facilitating the education of health professionals. The authors retain all rights to the material and users are requested to acknowledge the source of the material.

Site Disclaimer
This site is developed to reach healthcare professionals and medical students. Nothing this site should be considered medical advice. Only your own doctor can help you make decisions about your medical care. If you have a specific medical question or are seeking medical care, please contact your physician.

The information in this website is provided for general medical education purposes only and is not meant to substitute for the independent medical judgment of a physician relative to diagnostic and treatment options of a specific medical condition.

The viewpoints expressed in these cases are those of the authors. They do not represent an endorsement. In no event will Advanced Radiology Associates, PC, Spectrum Health Hospitals (Helen Devos Children's Hospital) or GE Healthcare be liable for any decision made or action taken in reliance upon the information provided through this website.