History
17 year old female with head injury.

Diagnosis
Sutural Epidermoid Cyst

Discussion
Dermoid and epidermoid cysts are thought to occur around the head as a result of the persistence of ectodermal elements at sites of suture closure, neural tube closure, and diverticulation of the cerebral hemispheres. Dermoid cysts contain ectoderm and skin elements, whereas epidermoid cysts contain ectoderm but no skin elements. Dermoid and epidermoid cysts are most commonly seen in midline and frontotemporal locations, followed by parietal locations. Midline locations include the anterior fontanelle, glabella, nasion, vertex, and subocciput. Sutures that are commonly affected include the frontozygomatic, sphenofrontal, sphenosquamosal, squamosal, coronal, lambdoid, and parietomastoid sutures. CT attenuation and MR signal varies depending on content (e.g., fat attenuation with dermoid cysts and fluid attenuation with epidermoid cysts). Epidermoid cysts typically have increased signal on isotropic diffusion-weighted and low signal on ADC maps.

Findings
CT-Intradiploic low density lesion near the right front-temporal suture with effacement and interruption of the inner table of the skull.
MR-Nonenhancing proteinaceous fluid collection with restricted diffusion.

Reference
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.