What’s Your Diagnosis?

**Patient Presentation:** 27-year-old male with history of hemiplegia and seizures since childhood. Seizures partially controlled with medication.

**Studies Performed:** MRI of the brain.

**Finding:** MRI SHOWED ATROPHY OF THE RIGHT CEREBRAL HEMISPHERE, MIDLINE SHIFT TO RIGHT AND ASSOCIATED SULCAL WIDENING AND PROMINENCE OF THE RIGHT LATERAL VENTRICLE. GREY MATTER IS THINNED AND THERE IS REDUCED VOLUME AND T2 HYPERINTENSITY OF THE DEEP WHITE MATTER. ATROPHY OF THE RIGHT THALAMUS, BASAL GANGLIA AND CEREBRAL PEDUNCLE WAS PRESENT. THE CONTRA LATERAL CEREBELLAR HEMISPHERE WAS ATROPHIED. ASSOCIATED COMPENSATORY CALVARIAL HYPERTROPHY AND ENLARGED FRONTAL SINUSES WERE ALSO PRESENT. DIAGNOSIS OF DYKE-DAVIDOFF-MASSON SYNDROME (CEREBRAL HEMIATROPHY).

**Key Points:** MRI is the imaging of choice for evaluation of the extent of parenchymal loss and also for assessment of possible etiology. Coronal images best demonstrated the atrophy of the contra lateral cerebellar hemisphere. Calvarial overgrowth and enlargement of paranasal sinuses occurs in congenital and infantile types of hemiatrophy as a compensatory mechanism and can be differentiated from the adult acquired type where bony changes are not a feature. Enlarged sulcal spaces are present when the vascular insult occurs after birth or after sulcation. This is in contrast with congenital type when the insult is in the early intrauterine period before sulcation has completed and therefore sulcal widening is not a feature.

*Case and images courtesy of www.diagnosticimaging.com, July 16, 2013*

Consult with DIS regarding correct CPT codes on referral order

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