Teaching NeuroImages:

Diaschisis

Is it always reversible?

A 17-year-old boy presented with left focal seizures and progressive hemiparesis for 10 years. Serial MRIs showed progressive right cerebral and contralateral cerebellar atrophy (figure). He is seizure-free after right hemispherotomy. Pathology was compatible with Rasmussen encephalitis.

Crossed cerebellar diaschisis and subsequent crossed cerebellar atrophy, due to supratentorial lesions or chronic focal seizures, represents the best evidence of transneuronal depression in humans.1 Contrary to the original concept of reversible dysfunction in diaschisis,2 distant areas may undergo irreversible degeneration depending upon the nature of the primary process. Progressive crossed cerebellar atrophy has been mainly reported with conditions associated with chronic focal seizures,1 presumably related to additional transneuronal excitotoxic damage.

REFERENCES


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