

Title: Leukodystrophy Overview *GeneReview* Table 9

Authors: Vanderver A, Tonduti D, Schiffmann R, Schmidt J, Van der Knaap M

Date: February 2014

**Table 9. Disorders with Thinning of the Corpus Callosum on MRI**

Feature	Inherited Disorder/Condition		Acquired Disorder / Condition
	Leukodystrophy	Not Leukodystrophy	
Thinning of the corpus callosum	<ul style="list-style-type: none"> <li>• <a href="#">Free sialic acid storage disorders</a><sup>1</sup></li> <li>• Fucosidosis</li> <li>• <a href="#">HCC</a><sup>2</sup></li> <li>• <a href="#">HDLS</a><sup>3</sup></li> <li>• <a href="#">Pol III-related leukodystrophies</a><sup>4</sup></li> </ul>	<ul style="list-style-type: none"> <li>• Adenylosuccinase deficiency</li> <li>• <a href="#">FAHN</a><sup>5</sup></li> <li>• <a href="#">Fumarate hydratase deficiency</a></li> <li>• <a href="#">GPR56-related disorders</a></li> <li>• <a href="#">Glycine encephalopathy</a></li> <li>• Molybdenum cofactor deficiency &amp; isolated sulfite oxidase deficiency</li> <li>• <a href="#">Mucopolipidosis IV</a></li> <li>• Neuronopathic form of malignant infantile osteopetrosis</li> <li>• Peroxisomal disorders such as <a href="#">peroxisome biogenesis disorders</a> and single enzyme deficiencies (excluding X-ALD)</li> <li>• <a href="#">SPG 11</a><sup>6</sup></li> <li>• SPG 15</li> </ul>	

Note: Disorders are ordered alphabetically.

1. Includes Salla disease; infantile sialic acid storage disease, intermediate form

2. Hypomyelination and congenital cataract

3. Hereditary diffuse leukoencephalopathy with spheroids. Also known as adult-onset leukodystrophy w/ neuroaxonal spheroids & pigmented glia; may include hereditary diffuse pigmentary type of orthochromatic leukodystrophy w/pigmented glia (POLD).

4. Includes hypomyelination, hypodontia, hypogonadotropic hypogonadism (4H syndrome); ataxia, delayed dentition, and hypomyelination (ADDH); tremor-ataxia with central hypomyelination (TACH); leukodystrophy with oligodontia (LO); and hypomyelination with cerebellar atrophy and hypoplasia of the corpus callosum (HCAHC).

5. Fatty acid hydroxylase-associated neurodegeneration

6. SPG = spastic paraplegia