ON-LINE FIGURE. Study overview. The source data of the present study were preoperative MR imaging datasets, including nonenhanced and CE T1-weighted, T2-weighted, and FLAIR sequences and histologic and genetic data determined from tumor material retrieved during gross total tumor resection. Multiparametric MR imaging data of 28 patients were evaluated by 3 experienced neuroradiologists using classic morphologic (1) and further volumetric and location criteria (2). Genetic and histologic data were statistically analyzed together with imaging criteria of 1 and 2 to identify imaging biomarkers that may be used to discriminate genetically or histologically distinct medulloblastoma lesions. Identified imaging biomarkers were compared with those identified by a radiomic medulloblastoma study in children (Perreault et al14).