

Berg AT, Vickrey BG, Testa FM, Levy SR, Shinnar S, DiMario F, Smith S. **How long does it take epilepsy to become intractable: a prospective study.** Ann Neurol 2006;60:73-79.

Objective: To determine prospectively when in the course of epilepsy intractability becomes apparent.

Methods: Data are from a prospective cohort of 613 children followed for a median of 9.7 years. Epilepsy syndromes were grouped: focal, idiopathic, catastrophic, and other. Intractability was defined in two ways: (1) 2 drugs failed, 1 seizure/month, on average, for 18 months (stringent), and (2) failure of 2 drugs. Delayed intractability was defined as 3 or more years after epilepsy diagnosis.

Results: Eighty-three children (13.8%) met the stringent and 142 (23.2%) met the two-drug definition. Intractability depended on syndrome ($p < 0.0001$): 26 (31.3%) children meeting stringent and 39 (27.5%) meeting the 2-drug definition had delayed intractability. Intractability was delayed more often in focal than catastrophic epilepsy (stringent: 46.2 vs 14.3%, $p = 0.003$; two-drug: 40.3 vs 2.2%, $p \leq 0.0001$). Early remission periods preceded delayed intractability in 65.4 to 74.3% of cases. After becoming intractable, 20.5% subsequently entered remission and 13.3% were seizure free at last contact.

Interpretation: Intractable epilepsy may be delayed, especially in focal epilepsy. It often is preceded by a quiescent period, followed by further remissions. These findings help explain why surgically treatable epilepsies may take 20 years or longer before referral to surgery.