



Brain Center
Rudolf Magnus

Antiepileptic drug withdrawal in medically and surgically treated patients: a meta-analysis of seizure recurrence and systematic review of its predictors

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AED withdrawal – risk and risk factors

IN THIS REVIEW

meta-analysis: risk of relapse following AED withdrawal

- after successful medical treatment
- after successful epilepsy surgery

systematic review: factors influencing relapse risk following AED withdrawal

meta-analysis: risk of seizure recurrence (1)

MEDICALLY TREATED PATIENTS

recurrence risk after start AED withdrawal (95% confidence interval)

	1 year	2 years	3-4 years
45 studies; 7,082 patients	22.1% (18.7-26.0)	27.5% (23.7-31.6)	33.7% (28.1-39.8)

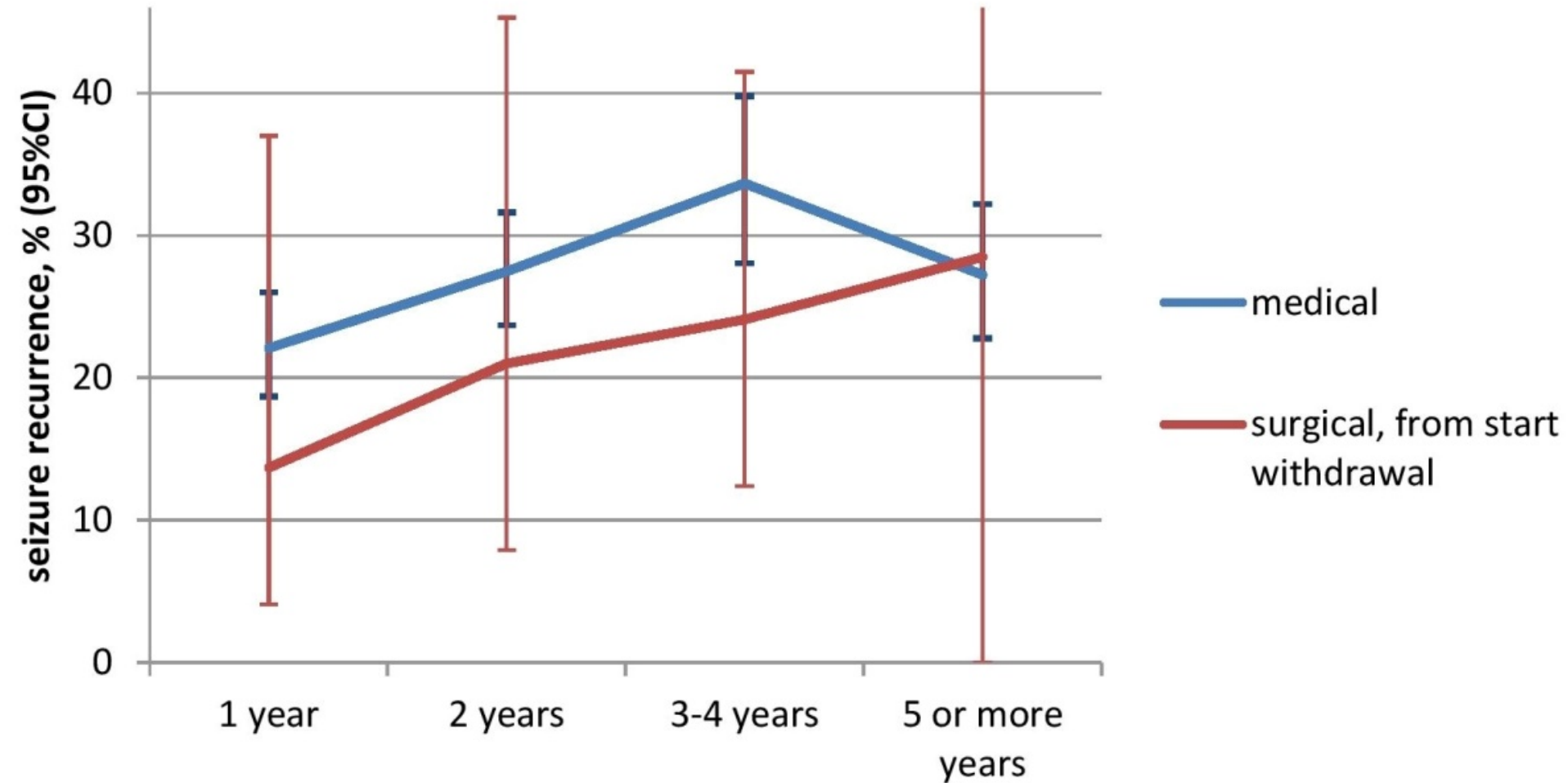
meta-analysis: risk of seizure recurrence (2)

SURGICALLY TREATED PATIENTS

recurrence risk after start AED withdrawal (95% confidence interval)

	1 year	2 years	3-4 years	5 or more years
6 studies; 1,172 patients	13.7% (4.1- 37.0)	21.0% (7.9- 45.3)	24.1% (12.5- 41.6)	28.5% (0.0- 100.0)

meta-analysis: risk of seizure recurrence (3)



systematic review: factors influencing recurrence risk

many factors have previously been identified as significant independent predictors

results of different studies are conflicting

most multi-variate analyses are of low to moderate quality with limited numbers

**no consistent set of predictors could be identified:
individual patient data (IPD) meta-analysis is needed**

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