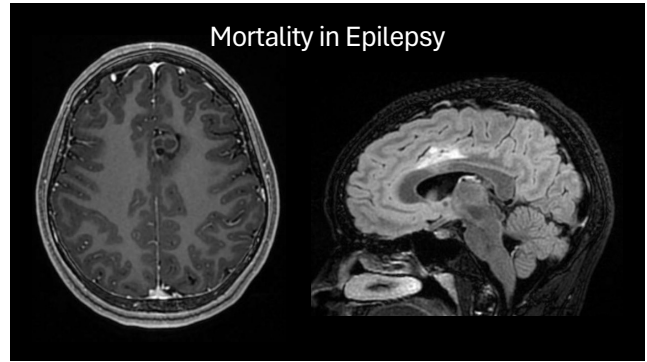


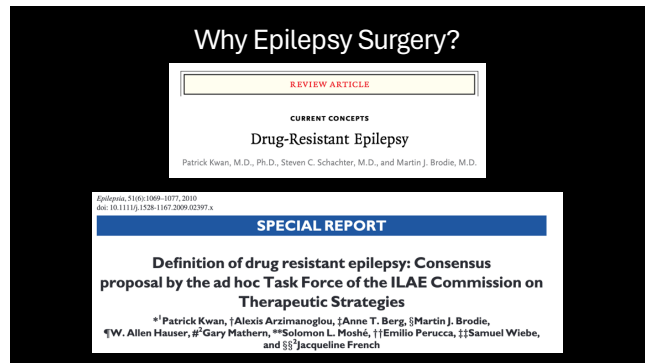
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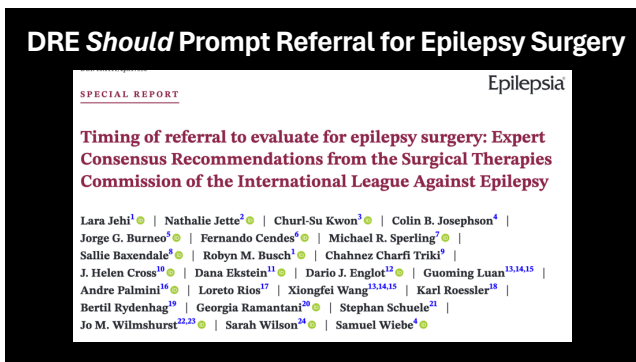
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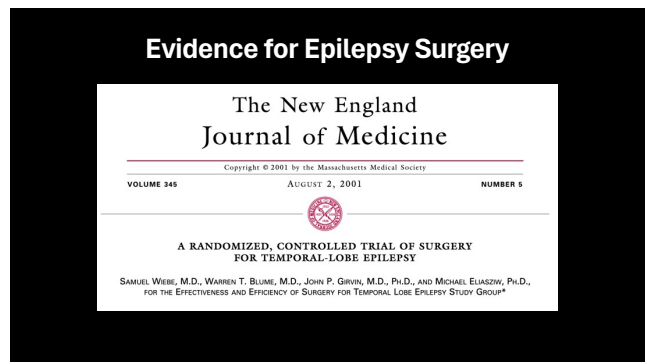
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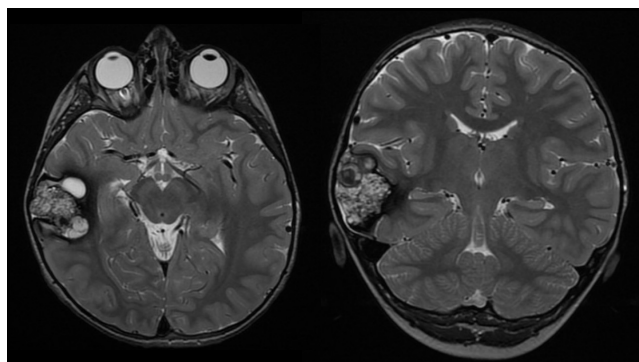
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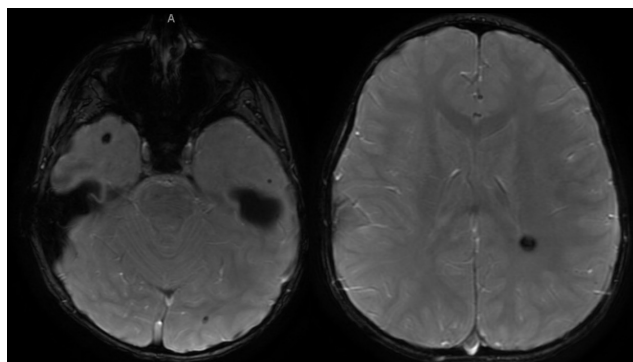
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Case Example

- Diagnosed with multifocal epilepsy.
- Started on Keppra.
- Referred to a neurologist for follow-up.
- Keppra doesn't work. So they try another med.
- MRI repeated. No intervention
- Genetics finds KRIT1 mutation.
- 2 months since diagnosis – having 5-10 seizures a day now.

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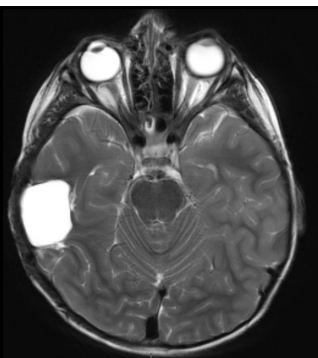
Case Example

- Starts a second med. Still not seeing a neurologist. Gets 2 months of seizure freedom.
- At 1 year he's on 2 meds, 5 seizures a day, still no epileptologist.
- 1.5 years. Sees an epileptologist. Started on third med. Still having >5 seizures / day.
- Seizures continue to progress leading to a hospitalization.
- He's not referred to a neurosurgeon.

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Case Example

- Was on the phone with the family that night. Looked at the MRI (Sunday).
- Saw in clinic on Tuesday.
- Surgery a week later.
- 1 YR: Seizure free on meds (has events detected only by EEG).

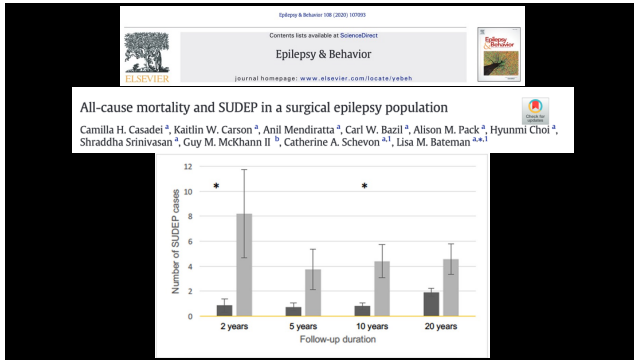


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Does Epilepsy Surgery Reduce Mortality?

My assertion: Any intervention that reduces seizure frequency is probably associated with reduced mortality in individuals with epilepsy.

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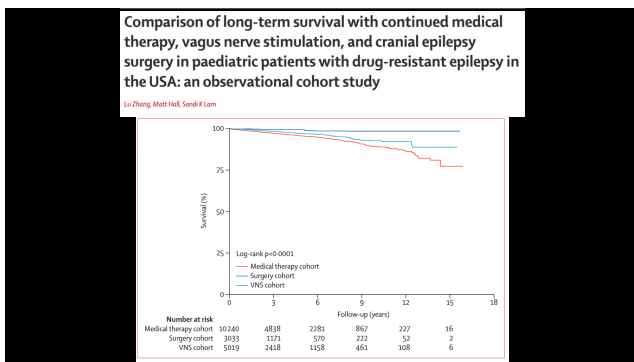
CRITICAL REVIEW Epilepsia

Drug-resistant epilepsy and mortality—Why and when do neuromodulation and epilepsy surgery reduce overall mortality

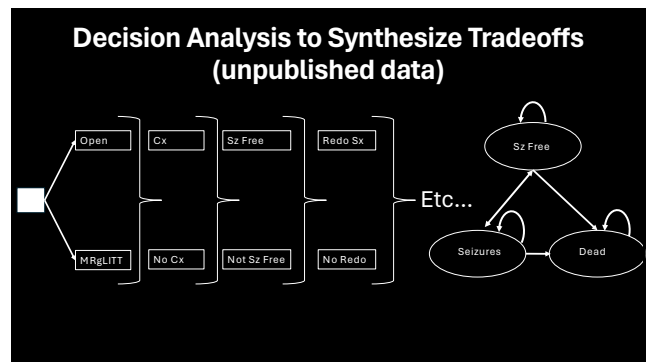
Sylvain Rheims^{1,2} | Mickael R. Sperling³ | Philippe Ryvlin⁴

- Systematic Review and Meta-Analysis
- Surgery leads to a 2-fold decrease in risk of death and 3-fold decrease in risk of SUDEP
- Influence of neuromodulation is less clear.

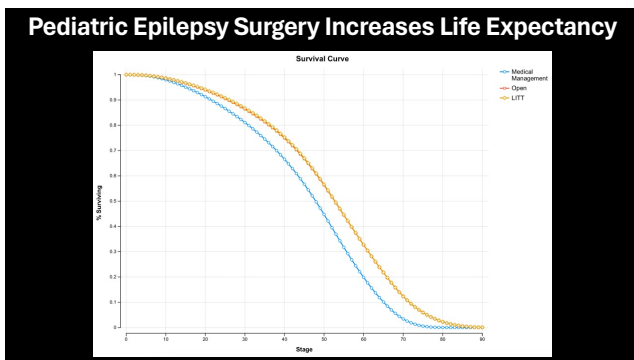
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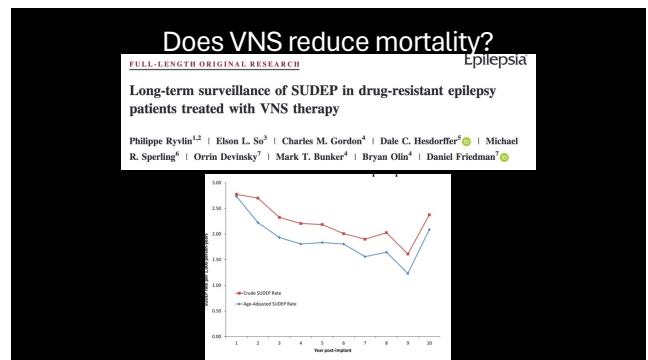
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Does VNS reduce mortality?

Mortality and SUDEP in epilepsy patients treated with vagus nerve stimulation

*[†]§Claudia A. Granbichler, [‡]§Lina Nashef, [‡]§Richard Selway, and [§]Charles E. Polkey

Epilepsia, 56(2):291–296, 2015
doi:10.1111/epi.12888

CONCLUSION

SMRs and SUDEP rate in this study are comparable to other cohorts with intractable epilepsy with SUDEP an important cause of death. VNS does not appear to lower the risk of premature death overall. There was a clear trend with lower SMR after 2 years of implantation, although CIs overlapped. SUDEP rates did not change, however.

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Conclusions

- Epilepsy surgery plays a crucial role in epilepsy management and can improve seizure outcomes, quality of life, and cognition.
- Interventions associated with decreased seizures are likely associated with decreased mortality.
- It seems that resective epilepsy surgeries are associated with decreased mortality.
- There is evidence that neuromodulation, such as VNS, is associated with decreased mortality, but this is less clear.

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