Management Issues After Epilepsy Surgery

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Question #1

- “My child’s last seizure was the day before surgery. It has been 3 months, and she is still taking all of the medications that she took before the operation. When and how can we think about making a change?”

Answer #1

- First landmark: gradually reducing the medication burden while maintaining protection
- Simplify gradually: reduce the number and doses of medication
- Aim for one medication at protective (not overly high) doses
- Reassess at 12 months after surgery

Question #2

- “We simplified the drug regimen, and my child is doing well. It’s been about a year since her surgery. She had a couple of seizures about a month after surgery, and then none after that. Where do we go now?”

Answer #2

- The second decision: whether or not to stop antiepileptic medications altogether.
- Fine-tune this choice for every child
- Several factors may play a role

Answer #2, continued

- How long has the child been free of seizures?
- A very good sign: no seizures for at least one year after surgery.
- At about that time we start to think about taking away the drugs altogether.
Answer #2, continued

- Were there any *early* seizures during the first two weeks after surgery, before everything quieted down?
- May still get off drugs successfully after a year or two
- Slightly increased risk for later seizures

Answer #2, continued

- Were there any seizures *later on* after surgery, before everything quieted down? (child in Question 2)
- If there were only one or two seizures: may still want to try to stop medications
- May wait longer (2 or 3 years) before trying

Answer #2, continued

- Did postoperative EEG and MRI show residual signs of the epilepsy or its cause?
- Were there complicated factors on the preoperative testing?
- Before stopping medication: wait 2 or 3 years, longer, or continue indefinitely
- Each child is unique

Question #3

- “Our child has done well since surgery and our doctor offered to gradually stop the medication altogether. Is this risky?”

Answer #3

- The most likely outcome (by far): no seizures
- *Risk #1*: He will have one of his typical seizures - the sign to restart medication.
- *Risk #2*: He will have a longer or harder seizure than usual (status epilepticus) and require emergency care.
- *Risk #3*: His seizures will get “stirred up” and be hard to stop again, even if medications are restarted.
- Risk #1 is not serious; risks #2 and #3 are possible but rare

Question #4

- “We stopped the medication about 5 years ago. Everything went great for a long time, but then about a month ago he had a seizure again after all those years. We were shocked. What do we do now?”
Answer #4

• Why might this occur?
• Sometimes most, but not all, of the epileptic parts of the brain were removed
• Restarting an antiepileptic medication may solve the problem.

Answer #4, continued

• Other possible causes?
• A late complication of surgery: pressure build-up in the brain due to abnormal fluid circulation (hydrocephalus) or abnormal fluid collection (cyst)
• Re-growth of a tumor
• MRI and EEG will sort things out
• Taking care of the cause will also help stop the seizures

Question #5

• “My child is dramatically better since his surgery two years ago, but he still has a few mild seizures now and then. What should we be doing now?”

Answer #5

• Could more surgery stop the seizures altogether, without major risk?
• Sometimes more brain tissue can and should be removed
• Update the MRI and video EEG

Answer #5, continued

• If repeat surgery is not advisable: try to stop or improve the seizures with medication
• Explore untried medications, or retry previous drugs that might work better now.
• It’s usually a new ball game after surgery!

Question #6

• “My daughter had epilepsy surgery when she was a baby. Now she’s a teenager with a driver’s license and a boyfriend. What can she expect for the rest of her life?”
Answer #6

- Very late seizure recurrence: possible but uncommon
- No contraindications to planning a family
- Any lifelong limitations are related to effects (if any) of the underlying cause on learning or motor function

Question #7

- “My child’s seizures stopped after surgery, and we took away the antiepileptic medication. He’s doing much better in school now, but he struggles to stay on task and pay attention. His pediatrician wants to start a stimulant medication for ADD. Is this a good idea?”

Answer #7

- Attention problems are a common
- Stimulant medications (Ritalin, Concerta, Adderall, Strattera) do not lower the threshold for seizures in most children
- Minimal or no interaction with antiepileptic medications
- We do not withhold them based on past or present epilepsy