



The Brain Briefing, Episode 8

Dr. Dymm: Stroke & Epilepsy, May 9, 2023

Credits:

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Maria Perrone:

Welcome to the Brain Briefing, brief conversations with neurology experts with information for everyday people. With us today is Dr. Braydon Dymm, a neurologist who specializes in stroke care, and today we will be talking about the overlap between stroke and epilepsy.

So where do we see the overlap between stroke and epilepsy?

Dr. Braydon Dymm:

I think it's really important to understand how strokes can cause seizures and how stroke is related to epilepsy. Stroke is the leading cause of epilepsy in older adults. There are two types of stroke. The first type is the ischemic stroke, which is when a blood clot blocks off the flow to the brain. It's kind of like having a heart attack in the brain, or a brain attack. The other type of stroke is a hemorrhagic stroke, a bleeding stroke, and that can cause irritation in the brain that can lead to seizures and eventually, the development of epilepsy.

Maria Perrone:

And just because someone has a seizure after a stroke, does that mean they now have epilepsy?

Dr. Braydon Dymm:

The question of whether or not somebody has epilepsy if they've had one seizure depends on their future risk for having more seizures. If somebody had a seizure immediately after their stroke, the 10-year risk of having another seizure, in general, is thought to be about 33%. So they might not actually have epilepsy and they might not need treatment with epilepsy medication. If somebody's had a seizure in the months following a stroke, that is thought to be more high risk, and sometimes we call that post-stroke epilepsy.

Maria Perrone:

And how does having a stroke cause seizures?



Dr. Braydon Dymm:

Having a stroke can cause seizures in a couple of different ways. Sometimes immediately after a stroke, there can be changes in the chemistry of the brain that can lead to a seizure. Other times, a stroke can lead to structural changes in the brain that can cause irritation, and it develops the risk to have seizures over time.

Maria Perrone:

So for someone who has had a stroke, should they expect to possibly experience seizures immediately or on an ongoing basis? Is this more of a long-term condition?

Dr. Braydon Dymm:

That's an excellent question. It's not clear what the risk of having another seizure if the first seizure happened immediately after, but if the first seizure that you have after a stroke is several months down the line, then there is some concern that you have an increased risk for having seizures on an ongoing basis. If that happens, sometimes we call it post-stroke epilepsy.

Maria Perrone:

What are the current recommendations for treatment of seizures post-stroke?

Dr. Braydon Dymm:

Right now, the thinking is that we want to make sure that the medication we give after a seizure matches the risk for having another seizure. So for example, if you have a seizure immediately after a stroke, it's again not clear if you have a high risk of having further seizures. And so sometimes we don't give any medication after just one seizure. Some people think that giving this anti-seizure medication can slow down the recovery of a stroke, and so that's one reason not to give it. However, if your seizure happens months down the line, there is still that risk of having ongoing seizures, and so many providers offer anti-seizure medication to try to lower the risk of having seizures.

Maria Perrone:

And lastly, what does the recovery look like for someone who's experienced seizures after a stroke?

Dr. Braydon Dymm:

If somebody's had a seizure immediately after a stroke, it doesn't necessarily complicate the recovery. Most people who've had a seizure immediately after a stroke don't have another one, and so the recovery looks pretty similar to other people who've had a stroke. The typical recovery is working with therapies like physical therapy, occupational therapy, and speech therapy, to work on gaining back those skills that might have been affected by the stroke. And sometimes that recovery takes weeks, months, sometimes up to a year, and sometimes even beyond a year. For other people who have had a seizure in the months following a stroke, we often get asked how those seizures should be managed. Those seizures should be managed in the same way as anyone else who's had a seizure or who has had epilepsy with anti-seizure medication.



Maria Perrone:

Thanks to Dr. Dymm for talking to us today. Thanks to our audio engineer, Stephany Perez, and thanks to you for listening to this episode of the Brain Briefing. You can find more info about the Duke Comprehensive Epilepsy Center at <https://neurology.duke.edu/DCEC>.