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NEW-ONSET EPILEPSY IN OLDER ADULTS: HOW TO DIAGNOSE, DIFFERENTIATE, AND TREAT IT

Djamilova Jamila Sattorovna

Department of Preclinicall Sciences of the Asia

International University. Bukhara, Uzbekistan.

Abstract: Epilepsy that starts in older people usually involves partial seizures that are either linked to a clear cause or unexplained. It's often tied to other health issues, both physical and mental, and can typically be managed with smaller daily doses of anti-seizure medications. Choosing the right treatment depends on the type of seizure, the overall epilepsy category, any other illnesses, and what other drugs the person is taking. Doctors often prefer medications that don't get broken down much in the body—like gabapentin, levetiracetam, and pregabalin—along with slow-release versions, which seem especially helpful for middle-aged and senior folks.

Keywords: brain, stroke, epilepsy, epidemiology, seizure, metabolism

Over the last 20 years, studies have shown that epilepsy is three to four times more common in people over 60 than in those in their middle years. With the world getting older, it's becoming even more crucial to spot it correctly, rule out other conditions, and treat it properly.

Epilepsy rates spike twice in life: once in young kids and again after age 60. In seniors, it affects men and women about equally.

We usually call people "elderly" from around 55-60 up to 75, "very old" over 75, and "super seniors" past 90. But remember, your calendar age isn't always the same as how your body feels.

What Causes It and How It Develops

When epilepsy shows up later in life, it's mostly due to an underlying issue. The top triggers, from most to least common, are:

Problems with blood vessels in the brain (like strokes)

Dementia

Brain tumors

Head injuries from accidents

Infections or poisoning

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For strokes, bleeding in the brain is the riskiest for causing seizures, followed by blood clots and reduced blood flow. In less developed areas, infections are still a big factor.

Seizures can also be sparked by things like low or high blood sugar, side effects from meds, drug or alcohol dependency, or heavy drinking.

It's uncommon, but some genetic types of epilepsy can start late too—like sudden jerking seizures. Getting the diagnosis wrong here might lead to the wrong meds and hard-to-control seizures.

At a deeper level, epilepsy in older adults often stems from built-up damage to brain cells. Things like repeated high blood pressure episodes can leave neurons not fully recovering, making them more prone to firing off abnormally and syncing up in a seizure. Aging brains also lose some stability in cell membranes, which helps create seizure hotspots.

As we age, the brain shrinks, especially in newer-evolved areas like the front part, memory center, and emotional regulation spots. This weakens the brain's natural brakes on overactivity, paving the way for seizures.

Figuring Out What's Really Going On

Older folks often have sudden episodes that aren't epilepsy, so sorting it out is key. Diagnosis relies mostly on symptoms, backed by brain wave tests (EEG), video monitoring, portable EEGs, and brain scans like MRI. Skipping sleep can really trigger a seizure, which helps in testing.

Things that might look like epilepsy include:

1. **Movement-Related Issues**

   Fainting with convulsions

   Lack of oxygen from heart or lung problems

   Involuntary movements

   Sudden drops or falls

   Temporary weakness in one area

   Twitches or movements during sleep

2. **Changes in Awareness or Sensations**

   Fainting spells

   Irregular heartbeats

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Low blood sugar

Brief strokes (TIAs)

Migraines

Anxiety attacks

Fake seizures from stress or psychology

Falls out of nowhere are a big red flag. They could be from actual seizures, but also from things like fainting due to low blood pressure, coughing, swallowing, peeing, sensitive neck arteries, heart rhythm issues, mini-strokes, sudden muscle weakness (cataplexy), or emotional triggers.

Fainting vs. Epilepsy

Common fainting (vasovagal) usually starts in teens but can happen later. It's often set off by standing too long, stress, or getting up quickly. A bad faint might include stiffening, jerking, biting your tongue, or getting hurt—just like a seizure.

A tilt-table test can help diagnose it. For heart rhythm problems, like in certain syndromes, a 24-hour heart monitor (Holter ECG) is useful.

Issues from Metabolism

Low blood sugar—whether from not eating or after meals—can cause weird behavior, confusion, or seizures. This might come from tumors making insulin, liver or kidney failure, hormone shortages, low thyroid, or too much alcohol.

Treating Epilepsy in Seniors

The basics of epilepsy care apply here, but we have to be extra careful with how the body handles drugs and any other health problems.

Starting Treatments for Partial Seizures

For older patients, gabapentin and lamotrigine are top picks to start with. They're generally well-tolerated and don't mess much with the liver's drug-processing system.

Newer options like levetiracetam and pregabalin are also great because they're not heavily processed by the liver.

Older Standby Meds

Carbamazepine works well for partial and full-body seizures but can interact with lots of other drugs and sometimes lower sodium levels in the blood.

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Valproic acid covers a wide range of seizures and rarely makes them worse. It does slow down liver enzymes, though, leading to interactions. Slow-release versions make it easier to take just once a day and stick to the plan.

Extra Tips for Older Folks

- Often, low or medium doses do the trick.
- Cut doses by about 25-33% because the body clears drugs slower.
- Skip meds that rev up liver enzymes if you can.
- Taking multiple meds makes everything trickier.
- Check blood levels of the drugs regularly.
- Memory issues can make forgetting doses a problem.
- Sleepy-making meds might make thinking fuzzier.

If kidneys or liver aren't working great, adjust doses accordingly. For serious liver problems, go for drugs that skip liver processing, like gabapentin, levetiracetam, or pregabalin.

Wrapping It Up

Epilepsy that starts in midlife or later is usually tied to another health issue and comes with extra medical baggage. In most cases, you can get seizures under control with just one med at a modest dose.

Drugs that don't rely on the liver (like gabapentin, levetiracetam, pregabalin) and slow-release valproate look especially good. Tailoring treatment to the person's other conditions, drug interactions, and ability to follow through is the key to the best results.

References:

1. Hauser WA, Annegers JF, Kurland LT. Incidence of epilepsy and unprovoked seizures in Rochester, Minnesota: 1935-1984. Epilepsia. 1993;34:453–68.

2. Гехт А.Б., Меликян Э.Г., Лебедева А.В. Эпилепсия у больных пожилого возраста: этиология, диагностика, лечение, качество жизни. Эпилепсия / Под общей редакцией Незнанова Н.Г. СПб., 2010. С. 452–62.

3. Антонюк М.В. Дифференцированный подход к диагностике и лечению эпилепсии у женщин в климактерии. Автореф. к.м.н. М., 2009.С. 24.

4. Caprio A, Hauser WA. Epilepsy in the developing wold. Curr Neurol Neurosci Rep 2009;9(4):319–26.

5. Andermann F, Bercovic SF. Idiopathic generalized epilepsy with generalized and Other Seizures in Adolescence. Epilepsia 2001;42:317–31.

6.Пирадов М.А. Инсульт. Пошаговая инструкция. – 1-е изд. / М.А. Пирадов, М.Ю. Максимова, М.М. Танашян — М.: ГЭОТАР-Медиа, 2019. — 272 с.

AMERICAN ACADEMIC PUBLISHER
INTERNATIONAL JOURNAL OF MEDICAL SCIENCES
ISSN NUMBER: 2692 - 5206 Volume 6. No 02. February ,2026

7. Габашвили, В.М. Эпилептические припадки при сосудистых заболеваниях головного мозга / В.М.

8. Zhao Y, Li X, Zhang K, Tong T, Cui R. The Progress of epilepsy after stroke. Curr Neuropharmacol. 2018;16(1):71–8.

9. Chung JM. Seizures in the acute stroke setting. Neurol Res. 2014;36(5):403–6.