

Stroke Risk Among Patients With Diabetes Mellitus

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Abstract: Living with diabetes can feel like navigating a maze of health challenges, and one of the scariest risks is stroke. This article dives into why people with diabetes are more likely to have a stroke, what's happening inside the body to cause this, and how we can lower that risk. In places like Uzbekistan, where diabetes and stroke are becoming more common, understanding and acting on this information is crucial. Diabetes can make strokes two to four times more likely, but with the right steps, we can fight back. This is especially important in Central Asia, where limited awareness and healthcare resources make prevention a big challenge.

Keywords: diabetes, stroke, prevention, risk factors, Uzbekistan, brain health

Introduction

Diabetes is a condition that affects millions worldwide, and it's more than just watching your sugar intake. It's when your body struggles to manage blood sugar, either because it doesn't make enough insulin or because the insulin doesn't work well. There are two main types: type 1, often starting in childhood, and type 2, which is more common in adults. There's also gestational diabetes, which can happen during pregnancy.

For people with diabetes, especially type 2, the risk of stroke—a sudden brain event that can change your life in an instant—is much higher. Strokes happen in two ways:

Ischemic Stroke: This is the most common type (about 80–85% of cases). It's when a blood vessel in the brain gets blocked, cutting off oxygen to part of the brain. Think of it like a clogged pipe—things like cholesterol buildup or blood clots can cause it.

Hemorrhagic Stroke: Less common (15–20%), this happens when a blood vessel in the brain bursts, causing bleeding. High blood pressure or weak blood vessels are often to blame, and it can cause more severe damage.

In 2022, the World Health Organization reported that diabetes and related complications led to over two million deaths globally, with high blood sugar linked to 11% of heart-related deaths. That's a big wake-up call, and it's why we need to talk about this.

Methodology and Literature Review

To understand the connection between diabetes and stroke, we looked at studies from around the world and zoomed in on what's happening in Uzbekistan and Central Asia. We explored how diabetes affects the body, what the numbers say about stroke risk, and what's being done to prevent it.

Results and Discussion

Diabetes is a global issue, with 537 million people affected in 2021, and experts predict that number could climb to 643 million by 2030. In Uzbekistan, screenings show that nearly 8% of people over 35 have diabetes, but here's the kicker: over 70% of them didn't even know they had it. The official count is about 650 cases per 100,000 people, but the real number is likely much higher because so many cases go undiagnosed.

Why does diabetes make strokes more likely? High blood sugar over time damages blood vessels, making them stiff or clogged, which sets the stage for strokes. People with diabetes not only have a higher chance of stroke but also tend to have worse outcomes—think slower recovery and a greater risk of another stroke.

In Uzbekistan, the government launched a program from 2019 to 2021 to improve diabetes care and catch cases early. The World Diabetes Foundation is also stepping in to help tackle diseases like diabetes in the region. But there's still a long way to go, especially when it comes to raising awareness and making healthcare accessible.

The good news? We know some things that work. Studies like the Heart Protection Study showed that a cholesterol-lowering drug called simvastatin cut stroke risk by 24% in people with diabetes. Another study, called CARDS, found that a drug called atorvastatin slashed stroke risk by nearly half (48%). These are powerful tools in our toolbox.

Conclusion

Diabetes makes strokes a bigger threat, but we're not powerless. Here's how we can lower the risk:

- Keep blood sugar and blood pressure in check: Work with your doctor to monitor and manage these numbers.
- Live healthier: Eat balanced meals, move your body regularly, and say no to smoking.
- Get checked regularly: Early detection of diabetes or stroke risk factors can make all the difference.

In places like Uzbekistan, where diabetes and stroke are on the rise, we need more public campaigns to spread the word and better access to healthcare. By taking these steps, we can protect our brains and live fuller, healthier lives.

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