



## ROSUVASTATIN MAY LOWER VASCULAR DEMENTIA RISK



**Bositkhonov Akmalkhon Nosirkhon ugli**  
**Jumaniyazov Bexzod Kadirberganovich**

"Internal Medicine" department of Urganch branch of Tashkent Medical Academy

### Article history:

**Received:** November 24<sup>th</sup> 2023  
**Accepted:** December 20<sup>th</sup> 2023  
**Published:** January 28<sup>th</sup> 2024

### Abstract:

Cognitive impairment is common in older people with ischemic heart disease. The first reason is dyslipidemia-distributed atherosclerosis, and the second reason is impaired pumping function of the heart in heart failure. In dyslipidemia, the amount of antiatherogenic lipids increases. The most effective drug in this case is rozurvastatin. Rosurvastatin reduces the size of atherosclerotic plaques not only in the heart, but also in the brain, improves blood circulation and blood supply to cells, therefore it can reduce the risk of dementia in the elderly.

**Keywords:** Rosurvastatin, ischemic heart disease, Cognitive impairment, dementia, dyslipidemia, older people, antiatherogenic lipids

**INTRODUCTION:** People who have ischemic heart disease, including heart failure, are at an increased risk for vascular dementia. Statins are a type of medication used to lower cholesterol and reduce the risk of ischemic heart disease.

In clinical observations in Urganch brach clinic of TMA have found rozurvastatin may help lower dementia risk in people with ischemic heart failure. More than half a billion people around the world have cardiovascular disease. Previous research shows that people who have cardiovascular disease — such as heart failure — are at an increased risk for dementia, including Alzheimer's disease. Rozurvastatins are a medications used in certain to help lower cholesterol levels and help protect against stroke and heart attack. Additionally, rozurvastatin may be used in both the prevention and treatment of heart failure.

Does Rozurvastatin prevent vascular dementia?

Some neurologists said that previous research suggested that rozurvastatin and atorvastatin may have neuroprotective, heratprotective effects in addition to their cholesterol-lowering effects. It is said that non-cardiovascular outcomes are increasing among heart failure patients, especially dementia.

Therefore, it was important to investigate whether rozurvastatin therapy could potentially reduce the risks of dementia incidence and including Alzheimer's disease, vascular dementia, and unspecified dementia in patients with ischemic heart failure.

This is not the first study to look at rozurvastatin lowering vascular dementia risk. A study was published in 2023 found people who took rozurvastatin experienced improved cognition over a period of some years. And research was published in 2018 reported rozurvastatin and atorvastatin may provide a therapeutic role in targeting neurotoxicity caused by the protein beta-amyloid, which is considered one of the causes of Alzheimer's disease.

Rozurvastatin and atorvastatin linked to decreased Alzheimer's risk.

For the present study, our cardiologist and neurologists team analyzed data from more than 638 people with a primary diagnosis of heart failure. About 540 people used rozurvastatin, and about 98 did not. Scientists analyzed four types of statins people used, including: atorvastatin and rosuvastatin.

They also examined their risk for two types of dementia — Alzheimer's disease, vascular



dementia. Upon analysis, researchers reported that rosuvastatin use was associated with a 20% lower risk of incident vascular dementia compared to not using rozurvastatin and atorvastatin.

Examiners also found that rozurvastatin and atorvastatin use was associated with a 28% lower risk of Alzheimer's disease, 18% lower risk of vascular dementia.

I was somewhat surprised to find such a strong association between rozurvastatin use and a lower risk of incident vascular dementia in heart failure patients. While there has been some previous research suggesting that rozurvastatin may have neuroprotective effects, the magnitude of the effect that we observed in our study was quite substantial. While there have been some previous studies suggesting that rozurvastatin may have neuroprotective effects, it was not entirely clear whether these effects would be specific to certain types of dementia or whether they would be more general. Our findings suggest that rozurvastatin therapy may be beneficial in reducing the risk of multiple types of dementia in heart failure patients.

How do statins lower dementia risk?

Based on the current understanding of rozurvastatin and its potential effects on vascular dementia risk, there are several mechanisms that may explain their beneficial effects.

Firstly, it is explained, rozurvastatin is primarily used to lower cholesterol levels, and high cholesterol has been associated with an increased risk of vascular dementia. By reducing cholesterol levels, rozurvastatin may help to prevent the buildup of plaques and tangles in the brain, which are characteristic features of Alzheimer's disease.

Secondly, it has the anti-inflammatory properties. Chronic inflammation is thought to play a role in the development of vascular dementia. By reducing inflammation, rozurvastatin may help to protect the brain from damage and neurodegeneration.

Thirdly, rozurvastatin has been shown to improve endothelial function, which is a significant risk for vascular dementia.

It's important to note that while these mechanisms provide a plausible explanation for the observed reduction in vascular dementia risk associated with rozurvastatin use, further research is needed to fully understand the exact mechanisms

- 3) Braunwald-Heart diseases-11<sup>th</sup> edition
- 4) G.E.Roytberg-Internal diseases, Cardiovascular system

#### **LITERATURES:**

- 1) [www.esc.org](http://www.esc.org) recommendations
- 2) Medical news today journals