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Editorial Comment

Incorporation of Statins in the Management of Post-Stroke Epilepsy

Post-stroke seizures (PSS), an important complication of stroke, comprises around 7% of all stroke events.[1] In this issue, Tseng WJ et al. comprehensively reviewed the pathogenesis and management for PSS[1] and highlighted the importance of risk assessment of PSS. Anti-epileptic drugs are the mainstay treatment for late-onset symptomatic PSS but their use in prophylaxis remains unsettled due to lack of clinical evidence and their non-negligible side effects. Efforts in seeking medications to reduce the risk of PSS have been done by researchers and statins are found to be associated with reduced risks for PSS in multiple clinical studies.[2]

Statins are inhibitors of 3-hydroxy-3-methylglutaryl coenzyme A (HMG-CoA) reductase. In addition to lowering plasma levels of lipid, statins are also reported to have anti-thrombotic, anti-inflammatory and anti-oxidation effects, which have been suggested to relate to its anti-convulsant potential.[1,2]

In one recently published meta-analysis, statins were shown to have preventive effects either in early-onset (within 7 days of the stroke) or late-onset (7 days after the stroke) seizures.[2] However, lack of efficacy was reported when statins were used prior to stroke.[1] The neuroprotective effects of statins likely differ among different doses and types of drugs. At present, the pathogenesis of PSS at different stages is not fully understood. How to proper use statins in PSS prophylaxis becomes a challenge in clinical management of such patients. Future prospective clinical studies are needed to clarify the role of statins in PSS.[3]

References

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