A Possible Solution to Statin Noncompliance

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Dear Madam, Pakistan is one of the top six countries for Cardiovascular deaths and it is estimated that 4.7 million people will die from Cardiovascular deaths between 2005-2027.[1] Considering the burden of cardiovascular disease, it is imperative that we focus our efforts on preventing and addressing risk factors while simultaneously ensuring that the goals of our preventive strategies are met. One such issue arises with statins.

Statin drugs are the first line drug therapy for dyslipidaemia (a significant risk factor for CVDs) and the most widely prescribed drugs for dyslipidaemia treatment as per both the American and European guidelines.[2] Statin drugs are essential for improving cardiovascular outcomes.[2] However, a challenge with statin therapy is nonadherence to the drug as shown by various studies. The percentage of patients taking statin dropped to 60.3% in one year and 48.8% in five years as shown by a cohort study on 1221 patients.[3] Statin associated muscle symptoms are the most common side effect implicated in patients discontinuing therapy.

A meta-analysis showed that patients with statin-associated myopathy had significantly lower vitamin D levels than non-myopathy patients. This study pooled the results of four studies to show a significant increase in tolerance rate after vitamin D supplementation.[4] A randomized control trial showed a decrease in cardiorespiratory fitness with statin drugs, significantly reduced in the group of statins plus vitamin D supplementation.[5] These studies show the positive results of vitamin D supplementation when given with statin. It is, thus, possible for us to increase compliance with statin therapy and improve patients' exercise performance on statin drugs.

Considering the impact of CVDs on our population and the pivotal part of Statin therapy, any related development can have a vast clinical impact and should be welcomed. We believe that general physicians should be made aware of such discoveries. Further, guidelines could be updated with inclusions of Vitamin D with high intensity Statin therapy. Finally, the importance of these drugs warrants further clinical trials to assess the feasibility of their use with vitamin D.

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