

Efficacy of Evolocumab in Patients with Hypercholesterolemia

Background: The FOURIER-trial reported that evolocumab significantly reduced LDL-C levels and reduced the risk of cardiovascular events. Our report focused on the effect of a PCSK9-inhibitor antibody on hyperlipidemia. Methods: We enrolled 29 patients who had LDL-C levels >70mg/dl or non-HDL-C >100mg/dl (placebo n=14, evolocumab n=15), participated in a 96-week, placebo-controlled trial with statin therapy. Patients were randomly assigned to receive evolocumab or matched placebo via subcutaneous injection. Lipid changes at week 4 from baseline were analyzed. Results: The median LDL-C level at baseline was 88mg/dl, and the average LDL-C level was 101.8±20.0 mg/dl. At 4 weeks, the median LDL-C level was 39mg/dl, and the average LDL-C level was 34.8±51.8 mg/dl. LDL-C levels were significantly reduced after treatment (P<0.001), as well as TC, ApoB, and ApoB/ApoA1 levels. During follow-up, no discomfort was reported at local injection sites, and no cases of abnormal liver-function were observed. Conclusion: Evolocumab significantly reduced LDL-C levels and was well tolerated.

