

AEP256:

Real-world experience of Evolocumab for treatment of hyperlipidemia in an outpatient population

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Background

Use of Evolocumab as a monotherapy or in combination with other lipid lowering drugs reduces LDL-C by up to 60% in patients with or without familial hypercholesterolemia (FH), diabetes mellitus (DM), or coronary artery disease (CAD). Data regarding the efficacy of PCSK9 inhibitors in MENA populations is lacking.

Method

Retrospective case review of all patients initiated on Evolocumab treatment at Imperial College London Diabetes Centre, Abu Dhabi, between 2017 and 2020.

Results

A total of 183 individuals were identified, of which six (3.3%) were diagnosed with FH (four heterozygous, two homozygous), 141 (77.0%) primary hyperlipidemia and 36 (19.7%) mixed hyperlipidemia. Mean + SD age 51.5 + 12.4 years, 51.4% (n = 94) male, 129 (70.5%) Diabetes Mellitus (DM), of which 125 (96.9%) Type 2 and four (3.1%) Type 1. The most commonly stated indication for use was statin intolerance in patients with primary hyperlipidemia (n = 59, 32.3%). Baseline median (IQR) LDL-C was 4.03(3.01–5.08), HDL-C 1.18(1.02–1.40), total cholesterol (TC) 5.70(4.45–6.86), and triglycerides (TG) 1.93(1.34–2.70). Significant reductions in median LDL-C (48.3%, $P < .001$), TG (16.1%, $P < .001$) and TC (34.7%, $P < .001$) occurred in the first 90 days of administration together with an increase in HDL-C of (8.3% $P < 0.001$). A total of 165 (90.2%) patients achieved a $\geq 30\%$ reduction in LDL-C on initial 90 days of treatment; of these 158 (86.3%) maintained this reduction at each followup visit over a follow-up period of at least 1.5 years. However, 25 (13.7%) patents did not maintain this reduction on at least two occasions during their follow-up. This was attributed to unavailability of medication in nine (36%) individuals, non-concordance in ten (40%) or withdrawal of treatment in six (24%) cases.

Conclusion

Clinically meaningful, statistically significant and sustained reductions in LDL, TG and TC levels were observed, affirming the role of PCSK9 inhibitors in management of hyperlipidemia in the Emirati population.

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