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LETTER TO EDITOR

Statin of Preference to Treat Dyslipidaemia in Patients with Renal Dysfunction

Cues from (SATURN)

نوعية أدوية الستاتين المفضلة لعلاج اضطراب اسْتِقْلاَبِ الشَّحْمِيَّات عند مرضى الخَلل الوظيفي الكلوي

ملاحظات من الدراسة العالمية (SATURN)

Sir,

The recent conclusion of SATURN (Study of Coronary Atheroma by InTravascular Ultrasound: Effect of Rosuvastatin versus AtorvastatiN) study,[1] demonstrated that maximal suggested doses of both atorvastatin and rosuvastatin ameliorate atherosclerosis to a similar extent by facilitating the regression of percent atheroma volume. Both statins, however, caused renal proteinurea, albeit to different extents. The published results of the study ephemerally state that "proteinuria was commoner in the rosuvastatin group than in the atrovastatin group (3.8% versus 1.7%)". Further, the treatment group pertaining to atrorvastatin had higher number of diabetics compared to the group on rosuvastatin (16.8% versus 13.8%). Diabetes augments kidney failure,[2,3] accounting for nearly 44% of new cases in the United States, therefore it is plausible the atorvastatin treatment group had more patients with renal dysfunction than the rosuvastatin treatment group whereby the actual reported percentage of patients with proteinuria on rosuvastatin might not reflect the true value.

The median age of the participants in SATURN-trial is ~57 years. An individual of 57 years has an average glomerular filtration rate (GFR) of 93 ml/min/1.73m2 versus 116 ml/min/1.73m2 observed in individuals 20–29 years of age, indicating a decline in renal function with advancement with age. The intriguing issue of pivotal importance remaining unanswered is "Which statin should preferably be administered in patients who are elderly with declining renal function/chronic kidney disease (CKD) patients/ patients with diabetic proteinuria?"

Currently, with contradicting results from several trials, a conclusive answer to the above is unavailable. As a case in point, atorvastatin exhibited reno-protective effects in the Treating to New Targets (TNT) study, but decreased estimated (e)-GFR in PLANET-I and CARDS trials.[4,5] Similarly, rosuvastatin exhibited reno-protective effects in mouse-model experiments, but in PLANET-I it exhibited reno-deleterious effects as it significantly decreased e-GFR.[6] The results of the SHARP trial,[7] show promise where simvastin plus

ezetimibe could be prescribed for patients with renal dysfunction, without plausible detrimental effects on renal health, although the trial lacked a longer follow-up period.[8] Future head-to-head trials with different statins or a statins plus non-statin-cholesterol lowering drug combination, conducted in a patient population with CKD and with a suitable follow up period, are essential to answer the question posed above. In the meantime, clinicians will have to choose the statin appropriate to the need of the patient.

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