Atorvastatin reduced coronary and stroke events in patients with hypertension and without dyslipidemia

In his commentary on the ASCOT study (1), Dr. Simon stated “with the notable exception of women, all subgroups benefited from treatment.” This is incorrect. In addition to women, the ASCOT study did not demonstrate benefit for diabetic patients.

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In response:
Regarding the subgroup analyses in ASCOT, as displayed in Figure 5 and Table 4 of the ASCOT-LLA paper (2), there were 7 subgroups in which a statistically significant beneficial effect of atorvastatin was not observed. However, as the authors noted and as was displayed visually in Figure 5, the proportional beneficial effect on 6 subgroups (diabetes, left ventricular hypertrophy, no renal dysfunction, age ≤ 60 y, previous vascular disease, and metabolic syndrome) did not differ from that noted overall. It was only among women that no benefit was apparent (relative hazard 1.10), a point underscored by the authors themselves in the discussion. The test for a statin × sex interaction was not significant, but these tests have low power to detect such interactions.

That said, one must be cautious about any subgroup analysis, even prestated, especially considering the number of subgroups examined in ASCOT (18 subgroups) and the fact that none of the subgroups, including women, had findings that differed significantly from the overall result or from each other. Thus, clinical decisions should not be based on the results of the subgroup analyses reported in ASCOT, and all persons for whom lipid-lowering therapy is warranted based on their risk profile should be considered candidates for statin treatment.

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References