

Eligibility for Statin Therapy According to New Cholesterol Guidelines on Primary Aldosteronism: A Multicenter Longitudinal Cohort-based Study

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Objective

The recommendation for statin therapy for the prevention of cardiovascular disease is expanded in the 2013 guidelines of the American College of Cardiology and the American Heart Association (ACC/AHA); nevertheless, the research focused on primary aldosteronism (PA) with high cardiovascular events in the different guidelines has not been documented.

Materials and Methods

A total of 1197 patients with hypertension and received confirmatory tests were recorded from January 2007 to December 2013. The relationship between every aldosterone level and different guidelines was analyzed with generalized additive model (GAM).

Result

We enrolled 461 patients in the PA group (men, 44.9%; mean age, 57.4±8.4 years) and 553 control subjects as the essential hypertension (EH) group (men, 49.9%; mean age, 57.0±9.5 years). 10-year CV risk categories using 2013 ACC/AHA guidelines represented that estimated 10-year CV risk more than 7.5% was lower in EH than PA. Under ACC/AHA guidelines, the percentage of additional participants (43.8%) with EH recommended for statin therapy was lower than adults with PA (47.3%) ($p < 0.01$). Furthermore, GAM plot for the high levels of aldosterone tended to be more recommendations for lipid-lowering therapy in ACC/AHA guidelines than previous Adult Treatment Panel III guidelines, respectively.

Conclusion

Elevated aldosterone levels are associated with intensive statin prescription in PA according to the ACC/AHA guidelines. Among the components of the metabolic syndrome, lower HDL-c and higher LDL-c were prevalent in PA patients. As compared with the EH group, the PA participants would consequently give higher proportion of statin therapy in ACC/AHA guidelines.