

## A Retrospective Study on the Efficacy of a Ten-Milligram Dosage of Atorvastatin for Treatment of Hypercholesterolemia in Type 2 Diabetes Mellitus Patients (*Korean Diabetes J* 2010;34:359-67)

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We would like to extend our gratitude for interest and comments on our study, the results of which showed that routine ten-milligram fixed doses of atorvastatin are effective in about three quarters of type 2 diabetes mellitus (T2DM) patients for the treatment of hypercholesterolemia during the first 6 months of therapy [1].

As noted, assessment of compliance [2] is important for drug evaluation and study sample size must be sufficient for statistical power. However, the retrospective nature of this study made it difficult to assess or guarantee compliance. We assumed that all patients would be equally compliant regardless of treatment regimen.

Switching from atorvastatin to other statins rather than increasing the dose of atorvastatin when target levels of low density lipoprotein cholesterol (LDL-C) are not reached remains an interesting possibility. In normal practice, increasing the dose is more common than switching to other statins unless significant side effects are observed, because atorvastatin is one of the most powerful statins available for reducing LDL-C levels [3,4].

As to the comment regarding how to interpret poor response

to statin therapy in patients with high body mass index (BMI). We found that BMI is significantly correlated with baseline LDL-C levels. Patients with large fat mass may harbor large cholesterol pools in their bodies. Thus, to reduce the levels of LDL-C in these patients, higher amounts of statin or combination regimens with other agents such as ezetimibe [5,6] may be required.

### REFERENCES

1. Kim DK, Lee SR, Kim MS, Bae SH, Hwang JY, Kim JM, Suh SH, Lee HJ, Park MK, Kim DK. A retrospective study on the efficacy of ten-milligram dosage of atorvastatin for treatment of hypercholesterolemia in type 2 diabetes mellitus patients. *Korean Diabetes J* 2010;34:359-67.
2. Simpson RJ Jr, Mendys P. The effects of adherence and persistence on clinical outcomes in patients treated with statins: a systematic review. *J Clin Lipidol* 2010;4:462-71.
3. Choi DS, Kim DK, Kim DM, Kim SY, Nam MS, Park YS, Shon HS, Ahn CW, Lee KW, Lee KU, Lee MK, Chung CH, Cha BY, 83 investigators. Efficacy evaluation of atorvastatin in Korean

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hyperlipidemic patients with type 2 diabetes mellitus. *J Korean Diabetes Assoc* 2006;30:292-302.

4. Aguilar-Salinas CA, Gomez-Perez FJ, Posadas-Romero C, Vazquez-Chavez C, Meaney E, Gulas-Herrero A, Guillen LE, Alvarado Vega A, Mendoza Perez E, Eduardo Romero-Nava L, Angelica Gomez-Diaz R, Salinas-Orozco S, Moguel R, Novoa G. Efficacy and safety of atorvastatin in hyperlipidemic, type 2 diabetic patients. A 34-week, multicenter, open-label study. *Atherosclerosis* 2000;152:489-96.
5. Bae JW, Kim HS, Lee SC, Han KH, Jeon ES. The safety and efficacy of ezetimibe and simvastatin combination therapy in Korean patients with primary hypercholesterolemia. *Korean J Med* 2005;68:487-97.
6. Villa J, Pratley RE. Ezetimibe/simvastatin or atorvastatin for the treatment of hypercholesterolemia in patients with the metabolic syndrome: the VYMET study. *Curr Diab Rep* 2010; 10:173-5.