

The Review of Diabetic Studies

Special Edition on **Cardiovascular Disease, Lipids, and Diabetes**

Dear Colleague,

Herewith, I cordially invite you participating in the **Special Issue Project** for *The Review of Diabetic Studies* (<http://www.the-rds.org>) on **Cardiovascular Disease, Lipids, and Diabetes**. There are many controversies and unanswered questions relating to the care of diabetic patients with dyslipidemia. The cardiovascular and renal protective effects of current lipid-lowering agents in diabetic patients is very confusing, and many recent review articles have discussed the dilemma.

Based on an extended collection of clinical observation data and meta-analyses of research results, statin treatment is supposed to offer beneficial effects in the primary and secondary prevention of cardiovascular and kidney disease (<http://www.ncbi.nlm.nih.gov/pubmed/20934984>). However, the decrease in the incidence of macrovascular disease is not well correlated to the degree of LDL-C reduction, and many patients remain at high risk even when their level of LDL-C has been reduced by aggressive treatment with statins. Recent papers have suggested a role for HDL-C in the pathogenesis of diabetes cardiovascular disease, which cannot be treated by current medication. HDL-C has attracted attention for a long period of time, but study results have all been disappointing, especially the results from the ACCORD-LIPID study (<http://www.ncbi.nlm.nih.gov/pubmed/20228404>).

We have all experienced that many patients with diabetes have a paradoxical HDL-C reduction in response to statin treatment, which was also observed in the CARDS study (<http://www.ncbi.nlm.nih.gov/pubmed/15325833>). A recent review by de Lorgeril and colleagues have pointed out this situation (Rev Recent Clin Trials, 2012, 7(2):150-7, title: “Is the use of cholesterol-lowering drugs for the prevention of cardiovascular complications in type 2 diabetics evidence-based? A systematic review”). Their conclusion is as follows: “*This review does not support the use of cholesterol-lowering drugs (such as statin and fibrate) to reduce mortality and cardiovascular complications in type 2 diabetics. Official guidelines should be re-examined and reformulated by experts independent from the pharmaceutical industry*”. This is a very interesting and important conclusion, and it prompts us scientists to develop new treatment regimens. It is one of the reasons why I initiate this Special Issue on CVD, lipids, and treatment of diabetes cardiovascular complications. I think that current knowledge should be reconsidered and treatment

recommendations should be reformulated.

It will be important to elucidate the different effects of statin or fenofibrate in diabetes and non-diabetes and to explore the molecular mechanisms of impaired statin or fenofibrate responses in patients with diabetes. Fundamental research could explain the association of diabetes dyslipidemia with poor cardiovascular outcome and unresponsiveness to current medications. Clarification of the molecular mechanisms associated with diabetes dyslipidemia and response to statin or fenofibrate may be helpful in solving this controversy. Though review articles have been published, an integrated and comprehensive reappraisal of diabetes dyslipidemia and cardiovascular/renal diseases is still lacking and urgently needed. I believe that further in-depth review will have a great scientific impact.

The following topics are scheduled for the Special Edition of The Review of Diabetic Studies:

1. Effects of statin and fenofibrate in patients with diabetes – local data are ok?
2. Systemic review/meta-analysis of statin/fenofibrate treatment in diabetic and non-diabetic patients.
3. Pharmacogenetics and pharmacokinetics of lipid-lowering agents.
4. Systemic review/meta-analysis of the effects of statin treatment in diabetic and non-diabetic patients with cardiovascular disease.
5. Systemic review/meta-analysis of non-pharmacologic management of diabetes dyslipidemia.
6. Should the official guidelines be re-examined and reformulated for diabetes dyslipidemia management and for primary prevention?
7. Genetics of diabetes dyslipidemia.
8. New frontiers in the treatment of diabetes dyslipidemia.
9. Dyslipidemia and kidney disease (diabetic nephropathy) - a systemic review.
10. Effectiveness of statin/fibrate treatment of diabetic nephropathy/chronic kidney disease - a systemic review and meta-analysis
11. Dyslipidemia and diabetic retinopathy.
12. Development of new guidelines for the treatment of diabetic cardiovascular and renal complications.

I hope my considerations on diabetes dyslipidemia may be interesting to you, and that you join us with your contribution.

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Sincerely yours,

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