

Cardiologists and diabetes

I mentioned the interaction between cardiology and other disciplines in the editor's article in the June issue of the journal. The results of two studies on diabetes completed this year are important because they show why cardiologists should be interested other subjects.

You can say that you already address diabetes by recalling the interpretation that diabetes is a cardiovascular disease, which is written in the guidelines of the American Heart Association and causes our endocrinologist colleagues to be offended, and you would be right. However, I want to emphasize that new study data will make us more prominent in the organization of diabetes treatment.

It is not necessary to repeat how much diabetes increases the risk for cardiovascular disease, particularly coronary artery disease. All of the guides for diagnosis and treatment on this subject emphasize the importance of monitoring the risk factors for atherosclerosis in diabetes patients more strictly, based on evidence. The weakest point of these guides, on the other hand, is their recommendations on glycemic control.

As you remember, one of the first studies analyzing the relationship between glycemic control and macrovascular diseases was the UKPDS. This study showed that glycemic control reduced the incidence of macrovascular diseases in the first five years, but that this reduction was not statistically significant. However, the difference became more significant when the cases were followed for 10 years. This finding led metformin to be the first recommended oral antidiabetic. If the following studies reported similar findings, this subject would not be a source of confusion. Nevertheless, the studies such as ACCORD, ADVANCE and VADT, which compared the effect of strict glycemic control and a looser treatment strategy on cardiovascular endpoints obtained either negative or neutral results. In addition, observation of an increase in the incidence of heart failure in the studies conducted using some oral antidiabetics has increased the ambiguity of this subject.

The emergence of findings that glycemic control may increase cardiovascular mortality and morbidity has led to a glut of randomized controlled studies that aim to prove that new oral antidiabetics do not negatively affect the cardiovascular system. Although a drug proven to be harmless seems to be a positive fact for pharmaceutical companies, it does not have an important meaning for doctors who work face-to-face with patients.

The reason for this is clear. The majority of diabetic patients lose their health or lives due to cardiovascular diseases, and it is natural for doctors to expect that a drug they administer for glycemic control should also reduce cardiovascular risks.

This inconvenience has also drawn attention of the institutions such as FDA and EMA, which approve drugs for use. In order to do so, these institutions requested that randomized controlled studies be conducted to determine the effects of new oral antidiabetics on the cardiovascular outcomes as primary endpoints and to prove that these antidiabetics are superior to placebo.

Two such randomized controlled studies were designed and conducted to analyze the effect of two new antidiabetics on cardiovascular endpoints and were published this year. Cardiovascular death, non-fatal myocardial infarction and non-fatal stroke, which are the typical and common endpoints in cardiovascular studies, were chosen as combined endpoints. The EMPA-REG and LEADER studies, which were conducted with an oral antidiabetic and a parenteral antidiabetic, respectively, included diabetic patients who had a cardiovascular event or were at high risk of cardiovascular disease. Both studies have shown that these new drugs significantly reduce the primary combined endpoints. Another new drug was presented in the annual meeting of the American Diabetes Association in July, but we do not know about it in detail since the study about it has yet to be published. It has also been reported to have positive effects on similar endpoints.

I think that the data submitted by new studies will change our role in treatment as carrying out the daily practice. Up to today, our primary role given us by the guides has been to achieve the projected aims for LDL cholesterol and blood pressure to prevent cardiovascular disease in diabetic patients. Even though aims have been determined for glycemic control, the effects of these aims on the prevention of macrovascular disease have not been known. It seems that glycemic control with proven drugs will be our primary work since it will also prevent cardiovascular events. In fact, these new drugs have begun to be mentioned in a newly published document, "European Guidelines on Cardiovascular Disease Prevention in Clinical Practice."

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