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Dainippon Sumitomo Pharma Co., Ltd.

**“Hidden kidney damage” behind hypertension revealed by a large-scale survey**  
**--Results of an AVA-E study on about 9,000 hypertensive patients in Japan--**

Dainippon Sumitomo Pharma Co., Ltd. (Head Office; Osaka Japan; President; Masayo Tada) conducted a large-scale nationwide survey for the first time in Japan to figure out the actual state of “hidden kidney damage” latent in hypertension. In this survey, called an AVA-E study (albuminuria validation analysis-epidemiological study), about 9,000 hypertensive patients were examined for their levels of albuminuria, which is regarded as a diagnostic index to detect renal disorder at an early stage. The survey revealed that about 40% of the patients examined had abnormal levels of urinary albumin.

Determination of urinary albumin has been proven useful by a number of epidemiological studies for prognosing symptoms of chronic kidney disease (CKD) and cardiovascular disease (CVD). In the past, there were several unclear points about reality of urinary albumin of hypertensive patients in Japan. As a result of the AVA-E study made this time, real nature of albuminuria of hypertensive patients has been made known and factors increasing risks associated with albuminuria have been identified through factorial analyses.

<An outline of the results of the AVA-E study>

- **The level of urinary albumin is likely to be abnormal in approximately 40% of hypertensive patients (an estimated number of patients in Japan; 40 million).**

The results of the AVA-E study carried out this time are considered to reflect the current status of hypertensive patients in Japan, which show that normal level cases of urinary albumin are 57.1% and positive cases of urinary albumin are 42.9% with 35% abnormal and 7.9% highly abnormal in levels.

- **Approximately 30% of patients are likely to have abnormal urinary albumin levels even if a proteinuria dipstick test shows a negative result.**

Even in negative cases of a proteinuria dipstick test, about 30% of the patients showed abnormal or highly abnormal levels of urinary albumin and in pseudo positive cases, 63% of the patients had abnormal or highly abnormal levels of urinary albumin.

- **Such factors as blood-pressure, diabetes and smoking increase risks associated with albuminuria of hypertensive patients.**

Multivariate analyses revealed that age, blood-pressure, smoking, diabetes, and eGFR (estimated glomerular filtration rate) are risk factors causing abnormal or highly abnormal level of urinary albumin while administration of inhibitor agents of rennin-angiotensin (RA) helps reduce such risks significantly.

We sell an angiotensin II receptor blocker (ARB), which is one of the inhibitor agents of rennin-angiotensin (RA), while placing an emphasis on information providing service concerning hypertension. We will continue supply of information, based on the results of the AVA-E study this time, to medical experts for the benefit of patients in hope that they can receive better medical treatment. Our medical information service is implemented also through our web-site page of “high blood-pressure and complicating diseases” \*, which is directed to patients and their families, and we commit ourselves to further effort for enlightenment activities to let as many people as possible realize importance of early finding and early treatment of “hidden kidney damage” latent in hypertension.

The results of the survey was reported by Dr. Tsuyoshi Watanabe, Professor of internal medicine (Nephrology, Hypertension, Diabetology, Endocrinology, and Metabolism) of Fukushima Medical University, who supervised the survey, at the 33<sup>rd</sup> Annual Scientific Meeting of Japanese Society of Hypertension (October 15- 17, 2010), which attracted most of the attention.

\* This site is only in Japanese.