The Annual Congress of the European Society of Cardiology (ESC) was held in Amsterdam from the 31st of August to the 4th of September 2013. The total attendance up to the 3rd was 29,990. Several important topics were presented and discussed, including a randomized trial of preventive angioplasty in myocardial infarction (PRAMI), transcatheter aortic valve implantation, renal denervation, management of vasospastic angina, plaque vulnerability and outcome assessed by OCT and diuretic resistance in heart failure (an ESC-JCS [Japanese Circulation Society] joint session), and OCT-guided percutaneous coronary intervention. The ESC congress has become one of the most important and attractive international scientific meetings. Importantly, Japan topped the number of abstracts submitted (1,459 abstracts) and accepted (565 abstracts) to ESC 2013. Thus, the ESC is eager to continue the strong collaboration with the JCS as the relationship between them gets closer year by year. (Circ J 2013; 77: 2687–2690)

Key Words: Awards; European Society of Cardiology; Hot Lines; Japanese Circulation Society; Late-Breaking Clinical Trials

ESC-JCS Joint Session

The Japanese Circulation Society has been an affiliated member of the European Society of Cardiology since 2008. At this year’s congress, there were 2 important and interesting ESC-JCS Joint Sessions (Figures 1A,B).

How To Deal With Diuretic Resistance in Heart Failure, Organized by 2 Chairpersons, Professors H. Shimokawa and S. Anker

In this session, the definition and mechanisms of diuretic resistance were presented by Professor Lopez-Sendon, and Professor Masuyama gave a lecture on how to manage resistance to diuretics based on the mechanisms using the ESC guideline (Figure 2A). Interestingly, Dr Dohi demonstrated the potential usefulness of tolvaptan for patients with heart failure and volume overload in Japan (Figure 2B). There were many people in the audience for this clinical seminar, suggesting that we need to understand and find the best management of diuretic resistance in patients with heart failure.

Beyond Lumenology: The Shape of Things To Come, Organized by 2 Chairpersons, Professors T. Murohara and J. Tardif

Professor Ozaki presented the efficacy of CT angiography to characterize positively remodeled coronary plaques with low attenuation as a higher risk of future acute coronary syndrome (ACS) development, but also its failure to detect intact fibrous caps (IFC) in culprit lesions that would represent plaque erosion (Figure 1B). However, optical coherence tomography (OCT) can show IFC in ACS, supporting an alternative treatment (non-stenting) strategy in some patients with AMI such as strong statin treatment. Professor P. Serruys overviewed the recent invasive studies of the natural history of atherosclerosis that aim to predict prognosis and identify which of the high-risk plaques will become a culprit lesion, with a very amazing title of “My way”.

The opinions expressed in this article are not necessarily those of the editors or of the Japanese Circulation Society.

Released online October 8, 2013
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Update on Transcatheter Aortic Valve Implantation and Renal Denervation

Particularly in Europe, interventional approaches for structural heart disease or renal denervation have developed remarkably. Current ESC guidelines recommend the use of transcatheter aortic valve implantation (TAVI) for high-risk patients with symptomatic severe tricuspid aortic valve stenosis (AS) who are not suitable for aortic valve replacement as assessed by the heart team (Class I, Level B), and renal denervation for resistant hypertension (Class IIb, Level C).

In this ESC meeting, the potential efficacy of TAVI for bicuspid AS, severe aortic regurgitation and intermediate-risk patients with severe AS was presented. In addition, potential multiple effects of renal denervation, including sleep apnea, myocardial function, arrhythmia, renal function and diabetes, were also reported, which remain to be established and addressed in the current guideline.

Hot Line Session

Hot Line submissions reached a record 227 this year. There was a diverse collection of Hot Lines with novel findings, new
ST-elevation MI.

New ESC Guidelines

ESC guidelines for 2013 were presented for the first time to general cardiologists, including new titles of stable CAD, arterial hypertension, cardiac pacing, and diabetes.2

Stable CAD

As in the 2006 guidelines, invasive coronary angiography and revascularization are recommended for patients at high risk for coronary events. But the definition of risk and the methods for assessing it have been updated. The previous guideline based risk estimation solely on stress electrocardiography, this has been expanded to include imaging techniques. Professor Sechtem mentioned that, “The approach to patients with functional coronary disease, ie, coronary vasospasm or microvascular disease, has been redefined. The definition of this group by clinical and non-invasive evaluation has become more important than in 2006 as more patients, especially females, undergo invasive coronary angiography because of stable angina and are then found to have no epicardial stenosis.”

treatments and the potential to change practice in cardiology. In particular, the Randomized Trial of Preventive Angioplasty in Myocardial Infarction (PRAMI) provided a new concept of preventive angioplasty in myocardial infarction (MI).7

PRAMI

Current guidelines recommend culprit-only percutaneous coronary intervention (PCI) for patients with ST-elevation MI and multivessel disease because there is a lack of evidence in favor of preventive PCI.2

In the PRAMI trial, patients undergoing emergency PCI for acute ST elevation (n=462) or left bundle branch block (n=3) MI and multivessel CAD were randomized to either preventive PCI (n=234) or culprit-only PCI (n=231). After a mean follow-up of 23 months, a total of 21 patients in the preventive PCI group and 53 in the culprit-only group experienced a primary outcome event (cardiac death, nonfatal MI or refractory angina) showing an absolute risk reduction of 14 per hundred patients in the preventive PCI group [hazard ratio 0.35 (95% CI 0.21–0.58), P<0.001], and a relative risk reduction of 65%. The study was not blinded, and the small number of patients and clinical events may require further studies, including detailed assessment of nonculprit plaque lesion in patients with multivessel ST-elevation MI.
The Best of European Heart Journal (EHJ)

The program keeps improving and the growing quality and scientific level of the EHJ and its sister journals has generated more interest from Japanese cardiologists. In support of this view, recent studies demonstrated that acceptance at the ESC congress independently predicts subsequent full-text publication with greater impact factor and higher citation rates. The EHJ increased its impact factor for 2012 to 14.097 and is in the number 2nd position worldwide among cardiology journals with a fully international structure of deputy, associate editors, including Professor Shimokawa (Asia), and editorial board.

ESC Awards 2013

There were 1 recipient of the Young Investigator Award and 9 Poster Awards from Japan. Dr Nishimiya from Tohoku University Graduate School of Medicine obtained both a “Young Investigators Award” and a “Top Scored Poster Award” this year, and to the best of our knowledge, he is the first to receive a Young Investigator Award in consecutive years at an ESC congress (Figure 2D).

Closing Remarks

It appears that declining interest in the AHA/ACC and the attractions of the ESC boosted abstract submissions from Japanese cardiologists and scientists. Indeed, Japanese scientists submitted the most abstracts to the 2013 Congress in Amsterdam, and the number of Japanese attendees is continuously increasing. I hope the present report will generate interest among many Japanese cardiologists to submit abstracts (deadline; St. Valentine’s day, 14th February, every year) and attend the next ESC Congress held in Barcelona (Spain) from 30th August to 3rd September 2014.

References