

Report from the 66th American College of Cardiology Congress 2016 in Washington, DC, USA

Paweł Rubiś

Center for Rare Cardiovascular Diseases, Department of Cardiac and Vascular Diseases at the John Paul II Hospital, Institute of Cardiology, Krakow, Poland

Washington, DC being the capital of the US, perhaps may still be called the capital of the world. Full of monuments and memorials, eclectic neighborhoods, and true local flavor, all of these mingled with an ongoing quest for power, richness and global influence – surly DC is a place unlike any other. All major deals, agreements or disputes were made here or under the auspices of the locator of the White House. Thus, no wonder why the world's leading cardiovascular professionals this year came together in Washington, DC for 3 full days of innovative education, ground-breaking science and interactive debates and discussion. The 66th American College of Cardiology (ACC) Congress was held at the Walter E. Washington Convection Centre between 17th till 19th March earlier this year.

And now a little about the numbers. This year's meeting featured 23 Late-Breaking Clinical Trials (LBCTs) presentations, 17 Featured Clinical Research presentations, and 2572 abstracts were presented in oral and poster sessions by over 2000 experts. Further, over 300 education sessions were led by more than 1550 faculty members. The cornerstone of the meeting was "Meaningful Education at its Best" that became not only a slogan but an active engagement amongst the entire cardiovascular team. Apart from dedicated and highly sophisticated sessions, more global or public-orientated lectures, such as preventive initiatives under the umbrella of "Million Hearts", "Barriers to New Medications for Cardiovascular Diseases" or "Emerging Trends in CV Medicine in 2107". Additionally, professor Valentin Fuster, who is the Editor-in-Chief of the *Journal of the American College of Cardiology* (JACC) announced that JACC was once again ranked #1 among 124 CV journals worldwide, according to the 2015 Impact Factor. Moreover, *JACC: Cardiovascular Imaging* and *JACC: Heart Failure*, with their IF exceeding 7.0, were also ranked among the top 10 CV journals.

Without doubt, it is impossible to present the full coverage of the ACC Congress in the short summary. However, there are some important issues for entire cardiology community, that need to be addressed. Firstly, there were several LBCTs that will surly change the landscape of the today's cardiology. Professor Marc Sabatine gave results of the highly anticipated FOURIER trial. He announced that addition of evolocumab, a PCSK9 inhibitor, to statin therapy over several years significantly reduced CV morbidity and mortality in patients with clinically evident atherosclerotic CV disease. Remarkably, evolocumab was able to reduce LDL-C by 59% from a median 92 to 30 mg/dl. Importantly, this reduction was maintained throughout the duration of the study. The good news is that

at last we have a real game-changing new drug that shows promise for the future. According to the SURTAVI trial, transcatheter aortic valve replacement (TAVAR) was found to be non-inferior to surgical aortic valve replacement (SAVR) in patients with symptomatic, severe aortic stenosis who had an intermediate level of operative risk. In the SURTAVI trial self-expanding CoreValve and the new Evolut-R valves, were used in 84 and 16% of TAVR patients, respectively. The trial's main conclusion was that TAVR was just as good as surgery, but it was not superior to it. Further, long awaited DECISION-CTO randomized clinical trial comparing a strategy of percutaneous revascularization in chronic total occlusions (CTO) vs. optimal medical treatment (OMT) was presented. Surprisingly for some, however, anticipated by others the trial failed to show any significant difference in the primary composite endpoint (mortality of any cause, non-fatal myocardial infarction [MI] and any revascularisation) at 3-years follow-up. There were numerous issues raised by the layout of the trial, nevertheless, we have at last strong piece of evidence that PCI of the CTO is not an automatic and default procedure for everyone and sometimes it is wise to take a step back rather than spend six hours in the cath-lab. There were also several studies from the heart failure (HF) field that warrants further attention. Doctor Parham Zarrini presented the newest ancillary findings within the WISE population who studied patients with HF and preserved ejection fraction (HFpEF) and persistent pro-inflammatory state as measured by interleukin-6 (IL-6). The authors

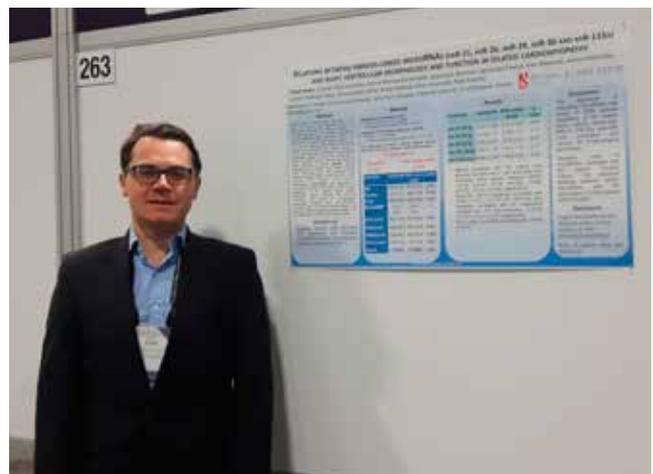


Figure 1. Doctor Paweł Rubiś in front of his poster during the session

found that a chronic pro-inflammatory state leads to endothelial and non-endothelial microvascular dysfunction, which has been shown to be associated with HFpEF. Additionally, doctor Allen J. Weiss reported that T1-mapping during cardiac magnetic resonance (CMR) imaging detects interstitial myocardial fibrosis (IMF) and that patients with HFpEF had more IMF than healthy controls. Is this likely that the increase in IMF contributes to impaired diastolic function and HF severity in HFpEF. They concluded that T1 mapping appears to be a promising tool for evaluating patients with HFpEF. Finally, it was revealed that Levosimendan does not meet primary endpoint in the LEVO-CTS trial. Although the clinical benefit was gained with the calcium-sensitizing inotrope levosimendan, the co-primary endpoints were not significantly improved in the LEVO-CTS trial evaluating the effect of the drug to prevent low cardiac output syndrome and its associated adverse outcomes in patients with a low LVEF undergoing cardiac surgery. The authors concluded that despite the fact that the drug had its intended biologic effect in increasing cardiac output and reducing low cardiac output syndrome, that did not translate into a reduction in our endpoints.

Lastly, it should be mentioned about our own input into the congress's scientific content. Doctor Pawel Rubis presented two abstracts, entitled "*Relations Between Fibrosis-linked Micrornas (mir-21, Mir-26, Mir-29, Mir-30 And Mir-133a) And Right Ventricular Morphology And Function In Dilated Cardiomyopathy*" and "*Associations Between Serum Markers Of Extracellular Matrix Metabolism, Fibrosis-linked Micrornas (mir-21, Mir-26, Mir-29, Mir-30 And Mir-133a) And Right Ventricular Parameters In Dilated Cardiomyopathy*" during the session: Cardiac Fibrosis and Heart Failure: The Next Frontier. The presentations raised several comments from the audience and few hopefully fruitful ideas were exchanged.

Information for authors

Aims and scope

Journal of Rare Cardiovascular Diseases (JRCD) is an international, quarterly, peer reviewed journal that keeps cardiologists up to date with rare disorders of heart and vessels. Topics covered include congenital heart defects, cardiomyopathies, rhythm abnormalities, rare forms of arterial hypertension, pulmonary hypertension, cardiac tumors and other rare diseases affecting heart and vessels such as connective tissue diseases, metabolic disorders, neuro-muscular diseases another unclassified rare diseases.

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