

## ICOS Annual Conference Meeting in Washington DC – importance for scientific activity in Eastern Europe

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The crowning achievement and summary of the 2013 scientific activity in the field of joint actions undertaken by oncologists and cardiologists was undoubtedly the December congress held in Washington DC. Its chief organizers were: (1) School of Medicine, Vanderbilt University, (2) DUKE University, School of Medicine, and (3) MEHHARY Medical College.

The first day of the congress was organized under the patronage of the Cardiac Safety Research Consortium, and at the same time it was a discussion forum involving FDA representatives. It was immensely interesting to follow expert discussions on the objective assessment of anticancer efficacy of the newly registered oncological drugs, and of their safety profile with respect to the cardio-vascular system. The main meeting of the scientists representing the International CardiOncology Society (ICOS) took place on the second day of the congress.

*ICOS Annual Conference Meeting* was divided into 4 scientific and didactic sessions, reflecting the main directions of scientific activity in the aforesaid area. The sessions were interrupted with long discussions on the matters brought up during the sessions, aimed at determining joint expert opinions for the purpose of the first joint document with the status of a *Consensus Recommendation*. The discussions were chaired by Daniel Lenihan together with Giuseppe Curigliano, Wamique Yusuf and Joanna Brell. The motto of the document could be summarized as follows: *Close collaboration between oncology and cardiology is recommended to avoid unnecessary discontinuation of cancer therapy*. During the scientific and didactic sessions, on the other hand, an in-depth review of the available literature was carried out, and experiences of the key cardio-oncological centres were presented.

Session 1 – *Hypertension Associated with Newer Drug Development: The Impact of Anti-angiogenic and Other Therapies*, chaired by: Thomas Force and Bonnie Ky. Speakers: Igor Puzanov, William White, Scot Remick, Javed Moslehi. Incidence of iatrogenic arterial hypertension, associated with the administration of anti-angiogenic drugs, was presented during the session, as well as the correlations between plasma concentration of those drugs and el-

elevated arterial pressure, as well as their anticancer efficacy, which is clinically related to the extension of the progression-free survival time. What was discussed was also angiospasm as a result of capillary damage by anti-angiogenic drugs, as well as the angiotensin release activation mechanism with decreased production of nitrogen oxide. The proposed algorithms of hypotensive treatment were looked into, including the role of beta-blockers (nebivolol and carvedilol) as compared to other groups of antihypertensive drugs, and angiotensin convertase inhibitors or angiotensin receptor antagonists in particular. Participants of the session paid attention to the necessity of preventing myocardial systolic dysfunction by means of an optimum administration of hypotensive treatment in patients receiving anti-angiogenic drugs.

Session 2 – *Detection of Heart Failure and Myocardial Toxicity*, chaired by: Thomas Suter, Lori Minasian, Boaz Mendzelevski. Speakers: Carol Fabian, Pam Douglas, Greg Hundley, Daniel Lenihan, Anju Nohria. It was the longest of the sessions, during which the problem of a “universal definition” of iatrogenic cardiac muscle injury was discussed, as well as the issue of how cardiological diagnoses should be translated into clinical decisions as to the continuation or cessation of anticancer treatment. It was observed that cardiological decisions may explicitly translate into patient prognosis, which is especially noticeable during adjuvant treatment with anthracyclines and trastuzumab. The role of modern imaging examinations was also discussed, including such as: (1) *strain rate* in echocardiography, and (2) late contrasting effect in magnetic resonance; yet again it was pointed out that in the assessment of left ventricle ejection fraction variability among experienced raters is still around 12 percentage points for ECHO 2D, and 5–8 percentage points for ECHO 3D. It was strongly emphasised that the search for new sensitive and specific cardiac muscle injury biomarkers has to continue – high sensitivity troponins seem very sensitive indeed, but they correlate with inflammation markers, and hence their elevated concentrations may be the effect of activated inflammation mechanisms following chemotherapy or resulting from concomitant diseases, and do not necessarily testify to cardiac damage. However, as there are no uniform criteria regarding the cut-off values for different types of troponins, while diagnosing cardiotoxicity, their concentration growth dynamic is assumed to correlate with patient prognosis. The potential role of natriuretic peptide concentration assessment was also brought up, as were the high hopes associated with molecular markers such as micro-RNA. What was also indicated was the usefulness of the peak oxygen consumption during exercise test as an early marker of cardiotoxicity. Efficacious primary cardiotoxicity prevention options were discussed pointing to carvedilol. The actual role and efficacy of angiotensin

convertase inhibitors, statins, liposomal doxorubicin and antioxidants as prevention strategies were commented, emphasising the fact that results of the following multi-centre trials will be of key importance for cardio-oncology: PREDICT, MANTICORE, PRADA, and others.

Session 3 – *Striking a Balance Between Bleeding and the Risk of Thrombosis in Cancer Patients*, chaired by: Michael Fisch, Joseph Carver. Speakers: Fabio Ciceri, Mitchell Krucoff, Frank Cornell, Sebastian Szmit. Potentially useful models were presented for the prediction of thromboembolic episodes in oncological patients, both those who have undergone surgical treatment, and the ones treated with chemotherapy, endocrine therapy or molecular-targeted therapy. Coronary episodes in the course of anticancer treatment were discussed in detail, focusing in particular on the group of patients with implanted DES stents. The possibilities of an optimum antiplatelet treatment in oncological patients following a coronary intervention were analyzed. Primary and secondary antithrombotic preventive treatment, duration and indications, selection of an optimum antithrombotic drug were discussed comparing the American and European guidelines, published in the years 2011–2013, and collating their differences. The safety and efficacy of antithrombotic drugs was also discussed with reference to renal insufficiency, thrombocytopenia, and bleedings.

Session 4 – *Enhancing Cooperation Between Disciplines in a Practical Manner*, chaired by: Sandy Constine, Greg Armstrong, Eric Harrison. Speakers: Monika Leja, Susan Dent, Carrie Geisberg, Kevin Oeffinger, Richard Steingard. The issue of reporting cardio-vascular episodes during anticancer treatment was discussed, including their impact on patient prognosis, and in particular the long-term one. The speakers also presented some aspects of patient assessment following a completed oncological treatment, when long-term survival is expected (haematological and embryonal carcinoma, early breast cancer). Publications devoted to the issues of late cardiotoxicity, and its impact on overall mortality were discussed during the session. Proposed predictive models for late-onset cardiotoxicity of chemotherapy and radiotherapy were looked into, referring to American and European recommendations in the field. Monitoring and management of children and young adults after cancer therapy seem to be the one of the most important problems in contemporary cardio-oncology.

An important Polish element of the congress was the inauguration of the “OnCOReview” journal as the “Official Journal of East European Branch of International CardioOncology Society.” “OnCOReview,” as a journal devoted mainly to the diagnostics and treatment of complications related to cancer therapy, as well as the assessment of therapeutic benefits and safety of the newly registered oncological, haematological and endocrinologi-

cal drugs, has won international recognition following the 3-year publication history in Poland, which is why it is going to be published not only in Polish from now on, but chiefly in English, and in the future also in Russian. Foreign experts, e.g. from the USA and Western Europe, together with a group of scientists based in Central and Eastern Europe, will spare no effort to make sure that apart from the usual scope of interest, issues pertaining to cardio-oncology will more and more often make it to the pages of the periodical. Presidents of the International CardiOncology Society,

Daniel Lenihan and Carlo Cipolla, have graced the journal with their participation in the *International Editorial Board*.

“OnCOReview” should thus be understood to be more than a review of interdisciplinary matters related to oncology and haematology, as the “COR” part in the title can be interpreted as CARDIO-ONCOLOGY REVIEW, or simply HEART in Latin. And it goes without saying that we wish to **put our heart into treating** every cancer patient.