ESMO Asia 2016: Strengthening global collaboration

Welcome to the second ESMO Asia Congress! ESMO and Congress President, Fortunato Ciardiello, who officially welcomed delegates to Singapore in yesterday’s Opening Session, is prompt to underline the significance of the Congress.

According to Rolf A. Stahel, Chair of the Scientific Committee, the mixture of innovative science and standard treatment approaches in this year’s programme will build on shared goals of advancing knowledge and improving disease management. On this note, the packed audience was treated to Keynote Lectures highlighting important insights in cancer research that have emerged in recent years. Charles Swanton (The Francis Crick Institute, London, UK) spoke about the role intra-tumour heterogeneity plays in drug resistance in advanced disease. By gaining a better understanding of the different heterogeneity development “rules” followed by each cancer type, we will be able to improve clinical trial design and treatment selection. Discussing undifferentiated nasopharyngeal cancer—which is endemic in parts of China and responsible for many deaths—Anthony Chan (The Chinese University of Hong Kong, Shatin) explained that discovering more about the involvement of Epstein-Barr virus in its pathogenesis is an important step towards optimising disease management.

As Co-Chair of the Scientific Committee, Hyun Cheol Chung said that the ESMO Asia Congress gave scientists and clinicians an appropriate stage to define new treatment standards, while planting the seed for future advances in medical oncology.

Professor Ciardiello is enthusiastic about the prospects for this year’s Congress. “I am confident we will see existing bonds reinforced and new ones formed, ensuring we continue to make the type of progress that will improve the outcome of our patients.”

“ESMO Asia provides a unique opportunity for the exchange of ideas and collaboration between oncology professionals in Asia and elsewhere.”

Fortunato Ciardiello

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Nivolumab improves health status in advanced lung cancer

Function-limiting symptoms and impaired quality of life (QoL) are inevitable consequences of advanced lung cancer. Today, Martin Reck (Lung Clinic Grosshansdorf, Germany) will present health status results from the CheckMate 057 trial comparing the anti-PD-1 antibody, nivolumab, with docetaxel in patients with previously treated advanced non-squamous non-small-cell lung cancer (14.30 – 16.00, Hall 406, Abstract 442O).

In addition to improving symptoms (compared with a worsening with chemotherapy), nivolumab delayed deterioration of symptom burden and showed trends towards improved QoL and a longer time to QoL deterioration.

"This is the first time a drug has improved tumour-related symptoms and quality of life in pre-treated patients with advanced lung cancer." Martin Reck

Results were first presented at ESMO 2016 (QoL, Abstract 1217FD) and ASCO 2016 (symptoms; Poster 9031).

Using tumour AXL gene signature to tailor therapy for ovarian cancer

Ovarian cancer shows wide heterogeneity according to gene expression molecular subtypes (GEMS) and patients with mesenchymal (Mes) subtypes have a particularly poor prognosis. The receptor tyrosine kinase AXL is thought to be a key player in epithelial-mesenchymal transition (EMT), and therefore metastasis, in Mes GEMS and presents an ideal target for treatment. In a Proffered Paper session yesterday, Ruby Yun-Ju Huang (Cancer Science Institute of Singapore, Singapore) described how her group used a specific gene signature to successfully stratify patients according to GEMS and thus identify those with overexpression of AXL (Abstract 2970).

The signature—comprising the top 30 genes correlating with AXL and derived from gene expression microarray analysis of more than 3,400 data points—was positively correlated with EMT score (rho =0.4148; p=5.23x10⁻⁶) and negatively correlated with overall survival (hazard ratio 1.263; p=0.0006; cut-off at median). In addition, the AXL signature was significantly overexpressed in omental metastases (p=0.0078) and platinum-resistant relapsed tumours (p=0.0059), compared with paired primary tumours.

It is essential to retrospectively validate in an independent cohort the role of AXL and identify prognostic factors.

RB1 mutation status does not affect palbociclib activity in bladder cancer

The CDK4/6 inhibitor palbociclib is being investigated for the treatment of various malignancies, all characterised by a functional retinoblastoma (RB1) gene. Results from experiments exploring the palbociclib sensitivity of RB1-wild-type and -mutant metastatic bladder cancer cell lines will be discussed by Daniel Castellano (University Hospital 12 De Octubre, Madrid, Spain) in a poster today (13.30 – 14.15, Exhibition Hall, Abstract 8P).

Palbociclib activity was independent of RB1 status and effects were synergistic with cisplatin.

RB1 mutation status had no impact on the response to palbociclib of cell lines in vitro and in xenografts. Following palbociclib administration, FoxM1, which may confer cisplatin resistance, showed reduced phosphorylation and all cell lines demonstrated increased sensitivity to cisplatin. Perhaps significantly, phosphorylated FoxM1 in human bladder cancer clinical samples was found to be a potential poor prognostic factor. Further in vivo studies are planned.

It is essential that future studies identify potential biomarkers of response to CDK4/6 inhibitors. Translational study data suggest that mutation of RB1 and phosphorylation of RB protein predict resistance to palbociclib.1

CONGRESS HIGHLIGHTS

First data on rare sarcomas in Asian patients

Two of today's presentations come from the Asian Sarcoma Consortium (ASC) and comprise a retrospective chart review of patients with cutaneous or visceral angiosarcoma treated at eight centres in Asia.

From one of the largest studies in angiosarcoma, based on 423 ASC patients, Richard Quek (National Cancer Center Singapore) will report that only around 60% with localised disease underwent surgery, with 70% achieving negative margins (Abstract 5010_PR). Retinoids were found in around half of the patients and was associated with positive surgical margins. In patients with locally advanced/metastatic disease, despite chemotherapy being associated with significantly longer overall survival (OS), only half of patients received it (Figure).

For the second ASC study, Tom Chen (National Taiwan University Hospital, Taipei) explains that, “It’s the first time we have data on expected survival, which will help us to develop clinical trials and new treatments for Asian angiosarcoma patients.”

Chemotherapy use and survival in locally advanced/metastatic disease (n=173)

Chemotherapy use

Overall survival according to treatment choice

Half (52%) of 271 patients with metastatic or unresectable disease received systemic chemotherapy; the most common first-line regimens were paclitaxel (47%) and liposomal doxorubicin (19%) (Abstract 5020_PR). OS was 8.3 months and was significantly higher for those receiving chemotherapy (11.5 months) than those who did not (4.4 months; p<0.01).

Makoto Endo (National Cancer Center Hospital, Tokyo, Japan) will describe clinical differences between recently identified molecular subtypes of Ewing sarcoma-like disease (Abstract 5030_PR). Five-year OS rates of 28.2% and 100% were found for CIC- (n=17) and BCOR- (n=7) rearranged sarcomas, respectively, with corresponding responses to chemotherapy of 29% and 75%. “Our research will help us to make a precise diagnosis,” says Dr Endo, “and should improve the management of these patients.”

Asian patients achieve improved overall survival with pembrolizumab than a mixed race group

Data from the KEYNOTE-012 study presented yesterday appear to indicate that Asian patients with head and neck squamous cell carcinoma (HNSCC) have better median overall survival than a mixed population (11.5 months versus 8.4 months, respectively), tumour shrinkage occurred in 50% of Asian patients and in 61% of mixed population patients.

In contrast, results presented yesterday from the Phase III CheckMate 141 study of the anti-PD-1 antibody nivolumab showed no difference in efficacy between patients from Asian and non-Asian countries (Abstract 3860_PR). In addition, patient-reported outcomes data suggested that nivolumab was associated with prolonged maintenance of functioning and reduced disease symptoms than the investigator’s treatment choice (Abstract 3610).

The trials enrolled patients regardless of PD-L1 status and as in other cancer types, there is a need for a biomarker that identifies who will respond even before we treat patients.

Nivolumab is the first immunotherapy to demonstrate a significant survival benefit for patients with recurrent/metastatic HNSCC who progress after platinum-based therapy. Of particular interest in the HNSCC setting could be the combination of immune checkpoint inhibitors with radiotherapy.

Chemotherapy use results report the findings in 26 Asian patients. While disease control rate with pembrolizumab was also better for Asian patients than a mixed race population (50.5% versus 37.9%, respectively), tumour shrinkage occurred in 50% of Asian patients and in 61% of mixed population patients.

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Women for Oncology: Still a long way to go

In the very first Women for Oncology (W4O) Session at an ESMO Asia congress, held yesterday, Chair of the ESMO W4O Committee, Solange Peters (Centre Hospitalier Universitaire Vaudois, Lausanne, Switzerland), said that women are still missing out in oncology careers. Findings from the latest ESMO W4O study show that in Asia in 2015, only 28.6% of invited speakers of national oncology congresses were women. And while women are, to a certain extent, present as board members in national oncology professional societies, they are not reaching the top positions.

In Asia, only one out of 15 analysed oncology professional societies has a woman president.

A unique Asian perspective on how women can use mentors and sponsors to help build their careers was given by Catharina Suharti (Diponegoro University—Dr Kariadi Hospital, Semarang, Indonesia). Fittingly, the 2016 ESMO W4O Award winner, Sumitra Thongprasert (Chiang Mai University, Thailand), offered advice on overcoming challenges and making the most of opportunities in oncology.

A digital platform to monitor patient care: Nurses have their say

Improving the co-ordination of patient health and supportive care needs is an important aspect for cancer patients after they leave hospital. A new web-based digital platform has been designed for patients to inform hospital medical teams of their care needs and flag up any issues with treatment. As such, nurse practitioners are a key part of these teams and their support of such a platform would be crucial to ensure its success.

Hear more in the Supportive and Palliative Care Poster Discussion Session; 16.30 – 17.30, Hall 325, Abstract LBA3.

Find out what nurses think about the use of this web-based digital platform in tomorrow’s late-breaking abstract presentation by Alexandre Saadi (Hôpital Européen Georges Pompidou, Paris, France). He will report results of a semi-quantitative survey of nurse practitioners’ expectations and acceptance of this type of instrument.
The ESMO-Magnitude of Clinical Benefit Scale: Integration into clinical practice guidelines

Yesterday saw members of the ESMO Magnitude of Clinical Benefit Scale (ESMO-MCBS) Working Group present on the latest developments surrounding the scale, including its application to phase II trials in the setting of the ESMO Clinical Practice Guidelines.

Awareness of the value of a new therapeutic strategy, i.e., the magnitude of its clinical benefit is of considerable importance, particularly in the context of new, expensive medications and technologies in the oncology arena, and cost constraints in healthcare systems. The ESMO-MCBS was developed as a validated and reproducible tool to quantify the clinical benefit expected from a new anti-cancer treatment.

Commenting ahead of the Congress, Nathan Cherry (Shaare Zedek Medical Center, Jerusalem, Israel) explained how the ESMO-MCBS Working Group is currently field testing version 1.1 of ESMO-MCBS, which is designed to be a dynamic tool with planned revisions and updates based upon recognition of expanding needs and identified shortcomings. A planned first important update of the scale is the creation of a new form (Form 3), “Currently in version 1.0, we are only able to grade comparative studies,” says Professor Cherry, adding that, “this new form has been devised for single-arm studies in orphan diseases and for diseases with high unmet need.”

Concluding the session, Elisabeth de Vries (University Medical Center Groningen, Netherlands), Chair of the ESMO-MCBS Working Group, said: “ESMO-MCBS enables us to gather important information on the clinical benefit of newly approved drugs.”

Find out more about ESMO-MCBS at: www.esmo.org/Policy/Magnitude-of-Clinical-Benefit-Scale.

NF-κB inhibition is the key to curcumin’s effects in breast cancer

The turmeric extract, curcumin, has shown anti-tumour activity in a range of cancers but how it produces this effect in breast cancer remains unclear. In a poster session today, Soodabeh Shahidsales (Mashhad University of Medical Sciences-Omid Hospital Cancer Research Center, Iran) will report results from a series of experiments using curcumin in MCF-7 monolayer cell cultures and spheroid models (13.30 – 14.15, Exhibition Hall, Abstract 19P).

Curcumin demonstrated a variety of activities, including cell-growth suppression, tumour growth inhibition and a reduction in MCF-7 invasiveness (versus control cells). It also significantly increased the proportion of cells in S and G2/M phases after 72 hours while decreasing the proportion of those in G0/G1. Crucially, further analysis revealed that cell death was increased through NF-κB pathway modulation.

These data pave the way for further in vivo investigations into the therapeutic potential of curcumin.

Diffusion-weighted MRI may predict response to radiotherapy in glioblastoma multiforme

Tumour heterogeneity affects response to treatment for glioblastoma multiforme (GBM), which has a poor prognosis, but it is difficult to assess. Today, Manjeh Beigi (Tehran University of Medical Sciences, Iran) will present results from a study using diffusion-weighted (DW) magnetic resonance imaging (MRI), which unlike anatomical MRI, provides information on tumour physiology (13.30 – 14.15, Exhibition Hall, Abstract 32P). DW-MRI is an emerging technology in many solid tumours.

The technique also identified differences in pre-treatment tumour metrics between patients who did and did not achieve 6-month progression-free survival. DW-MRI is now being validated in 28 patients with the hope of identifying metrics that can be used to predict outcomes and tailor treatment in routine practice. The role of DW-MRI in patients with GBM deserves further investigation.