ESMO 2016 Congress

7-11 October, 2016

Copenhagen, Denmark

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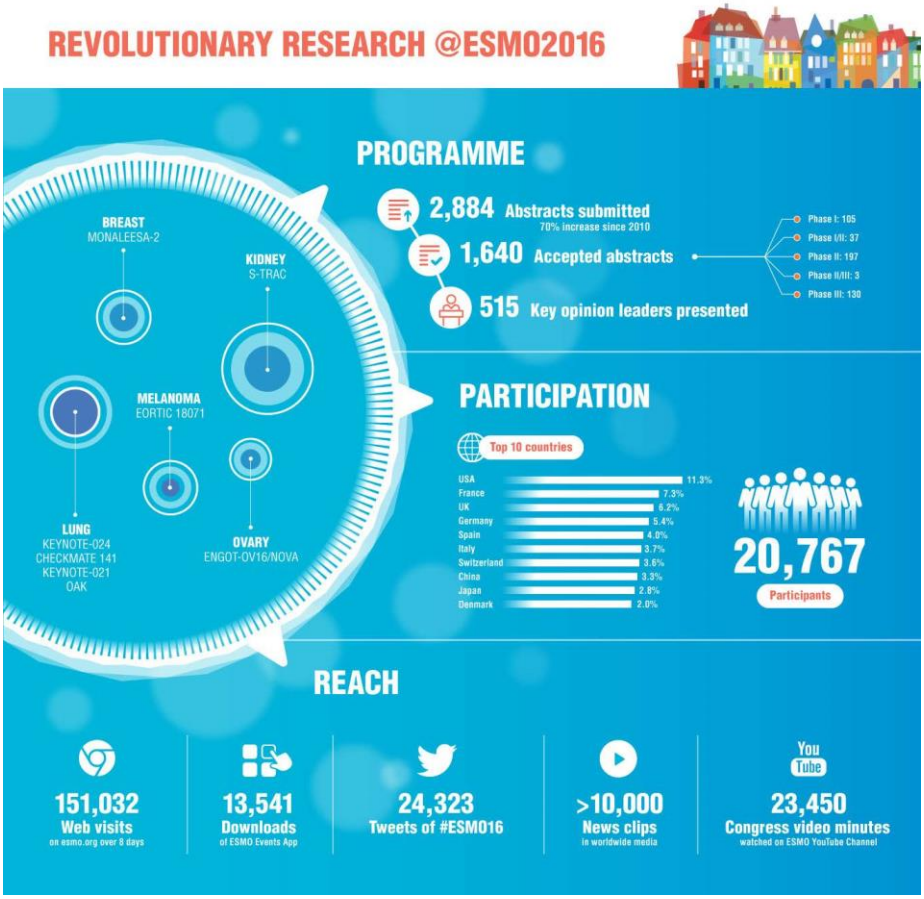
Summary

The European Society for Medical Oncology (ESMO) 2016 Congress, held October 7 to 11 in Copenhagen, Denmark, was a record-breaker on all levels. It was resounding success and in a dedicated infographic you can find the congress programme statistics. A primary emphasis in the scientific programme was placed on two areas: precision medicine and immunology and immunotherapy across multiple tumour types and how these advances change the treatment landscape in oncology. This report is an overview of key scientific presentations made during the Congress by leading international investigators. It attempts to represent the diversity and depth of the ESMO 2016 scientific programme, as well as advances in oncology.



ESMO 2016 record breaking Congress

BREAST CANCER - Early Stage Breast Cancer

Large data analysis reveals similar survival outcomes with sequential or concomitant administration of adjuvant trastuzumab in HER2-positive breast cancer

Xavier Pivot, Oncology, CHU Besançon, Hôpital Jean Minjoz, Besançon, France, and a team of investigators evaluated sequential versus concomitant administration of adjuvant trastuzumab using combined data of 11,728 patients with breast cancer that participated in the PHARE and SIGNAL trials. PHARE was a randomised phase III clinical trial (NCT00381901) and SIGNAL (RECF1098) was a prospective trial that was designed to include genome wide association study (GWAS).

In the SIGNAL/PHARE cohort nearly half, 5,502, breast cancer cases involved HER2-positive tumours.

Sequential administration of taxane-based chemotherapy and trastuzumab was delivered to 1897 (34.5%) patients, and 3605 (65.5%) patients received concomitant administration of taxane-based chemotherapy plus trastuzumab. Overall survival (OS) and disease-free survival (DFS) estimates made using the Kaplan-Meier method where similar regardless of the mode of administration; for the OS comparison (hazard ratio [HR] 1.01; 95% confidence interval [CI] 0.86, 1.19) and for the DFS comparison (HR 1.08; 95%CI 0.96, 1.21). Pivot *et al.* Abstract 144O

Practice point and future research opportunities

Several clinical trials in early HER2 positive breast cancer have assessed either sequential or concomitant incorporation of trastuzumab plus chemotherapy; however, only the NCCTG-N9831 trial prospectively compared the two modalities and showed no statistically significant difference between methods. The results from this analysis of data from the prospective SIGNAL and PHARE trials suggest that the sequential administration of trastuzumab given after the completion of adjuvant chemotherapy may provide similar benefit as concomitant administration of trastuzumab and taxane chemotherapy in the adjuvant setting.

Derived neutrophil-to-lymphocyte ratio proposed as a prognostic biomarker in early breast cancer

Alberto Ocaña Fernandez, Research Unit and Medical Oncology, Albacete University Hospital, Albacete, Spain, and colleagues investigated the utility of a marker of inflammation, derived neutrophil-to-lymphocyte ratio (dNLR), as a putative prognostic marker in subgroups of women with early breast cancer.

The investigators conducted a retrospective analysis of women with early breast cancer with axillary involvement participating in the randomised, phase III GEICAM/9906 trial of adjuvant fluorouracil, epirubicin, and cyclophosphamide (FEC) compared to FEC/paclitaxel. The dNLR

was calculated as the ratio of neutrophils divided by the difference between total leukocytes and neutrophils measured in peripheral blood prior to treatment. The ratio was then evaluated as a potential marker of disease-free survival (DFS) and overall survival (OS), using Univariable Cox regression. Subgroups by PAM50 subtype and hormonal receptor expression were subsequently analysed, with the prognostic and predictive value of dNLR for DFS and OS as the trial's primary and secondary endpoints.

This analysis used data from 1243 patients who were enrolled from 65 Spanish sites and followed-up for a median of 10 years. The patient median age was 50 years (range: 23 to 76 years). Of the 66% of patients with available PAM50 subtype determination, 22% of the tumours were Luminal A, 21% Luminal B, 14% were HER2-enriched, 6% Basal-like, and 3% of tumours were Normal-like. The majority of tumours (47%) were oestrogen/progesterone receptor positive (ER-positive/PgR-positive) and 13% were receptor negative (ER-negative/PgR-negative) subtypes, according to immunohistochemistry (IHC).

The investigators determined the median dNLR was 1.35; interquartile range (IQR) 1.08 to 1.71. The dNLR greater than this median significantly associated with poorer DFS in patients with HER2-enriched tumours (per PAM50), hazard ratio (HR) 1.63; 95% confidence interval (CI) 1.04, 2.54 ($p = 0.03$). In patients with non-luminal (per PAM50) tumours, the dNLR greater than the median or a dNLR in a higher quartile were associated with poorer DFS ($p = 0.02$ and $p = 0.03$, respectively). A high dNLR grouped in quartiles associated with poorer DFS and OS in patients with ER-negative/PgR-negative tumours, as determined by IHC ($p < 0.001$ and $p = 0.007$, respectively). Ocaña Fernandez *et al.* Abstract 145O

Practice point and future research opportunities

In this study, the association of the dNLR to survival was evaluated per tumour subtype in early breast cancer. A higher than median dNLR was found to associate with poorer DFS in women with HER2-enriched and non-luminal intrinsic tumours identified by PAM 50; in addition, high dNLR also associated with worse DFS and OS in women with ER-negative/PgR-negative tumours, as determined by IHC. Further confirmatory study is necessary to determine whether higher than median dNLR may serve as a prognostic marker of survival in early breast cancer.

Large analysis reveals outcome and treatment disparities in elderly patients with hormone receptor positive breast cancer

Lead author Steven Shak, of Translational Sciences, Genomic Health, Inc., Redwood City, USA, provided findings from a study done using the Surveillance, Epidemiology, and End Results (SEER) database of the National Cancer Institute to confirm an earlier finding that, not only are breast cancer diagnoses in older patients on the rise as life expectancy increases, but also older patients with hormone receptor (HR) positive breast cancer face a poorer prognosis (JAMA. 2012; 307:590). The investigators searched SEER registries that also contained 21 gene recurrence score (RS) results to evaluate breast cancer-specific mortality (BCSM), as previously

defined (JNCI. 2010;102:1584).

Data from 184,190 patients who were diagnosed from January 2004 to Dec 2011 with node negative (N0) HR-positive breast cancer, that did not have prior malignancy or multiple tumours were included in the study. Of these patients, 128,712 (70%) were younger than 70 and 55,478 (30%) were ≥70 years old. RS results were available for 35,487 (28%) patients aged less than 70 years; the median age of these patients was 55 years, 29% of patients had grade 1 disease and 54% were grade 2. Tumour size was ≤1 cm in 26% of patients and 54% of women had tumours >1-2 cm. In contrast, in the cohort of patients aged ≥70 years just 8% (4,647) of patients had RS results; the median age in this cohort was 73 years; 25% of patients had grade 1 and 55% of patients hade grade 2 disease. Tumour size was ≤1 cm in 20% of patients and >1-2 cm in 48% of patients.

Chemotherapy was used more often in younger than older patients; chemotherapy was used in 70% of patients overall but 72% of patients younger than 70 years received chemotherapy compared with 53% of patients ≥70 years ($p < 0.001$). In all patients, BCSM increased as recurrences increased; patients with RS < 18 had 5-year BCSM of 0.4%, compared to 1.4% in patients in the RS 18 to 30 group and 4.5 in patients with a RS of 31 or higher ($p < 0.001$).

As anticipated, the 5-year other-cause mortality was higher (11%) in patients ≥70 years compared with 4% in younger patients and was not associated with RS results ($p = 0.92$). Patients ≥70 years plus a RS ≥31 had the poorest BCSM of 11.7% ($p < 0.001$). Shak *et al.* Abstract 146O

Practice point and future research opportunities

The results of this large population-based observational study confirm that patients older than 70 years have a poorer prognosis than younger patients with node negative HR-positive breast cancer. The findings revealed that far fewer older patients received chemotherapy as treatment or recurrence score results were absent, contributing to breast cancer-specific mortality, which remains unacceptably high in US clinical practice for patients 70 years and older. Action is needed to address this disparity.

RELATED INFORMATION

Click here to access the Congress abstracts.

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Save the date

ESMO 2017 Congress, Madrid, Spain, 8-12 September 2017.

Affiliations and Disclosure

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Disclosure

No conflicts of interest to disclose.

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