## RESEARCH HIGHLIGHTS

IN THE NEWS

## From ESMO 2022

One of the most memorable images from ESMO 2022 is the waterfall plot [from NICHE-2]

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In early September 2022, the oncology community was able to resume one of their most awaited annual in-person events. Paris was the venue for the ESMO 2022 Congress, which brought together 29,000 delegates, of whom around 5,000 joined the meeting online.

We praise the programme committee for a careful selection of topics covering a broad spectrum. In addition to clinical trial results, translational studies and health policy initiatives also received well-deserved attention. The variety of themes discussed in the three Presidential Symposia held this year reflects the diversity of the ESMO 2022 programme.

Optimization of treatment for patients with locally advanced, resectable cancers was one of the major themes discussed in Presidential Symposia. In the phase II NICHE-2 trial, patients with non-metastatic mismatch repair-deficient colon cancer received ipilimumab plus nivolumab before undergoing surgery. With an incidence of grade 3–4 adverse events (AEs) of 3%, neoadjuvant treatment was deemed safe. The pathologic

response, major pathologic response and pathologic complete response rates were 99%, 95% and 67%, respectively. At a median follow-up duration of 13 months, none of the patients had disease recurrence. One of the most memorable images from ESMO 2022 is the waterfall plot depicting these data.

In the phase II SWOG S1801 trial, patients with stage IIIB–IV melanoma receiving pembrolizumab before and after surgery had improved event-free survival (EFS) compared with those receiving the same number of cycles of pembrolizumab only in the adjuvant setting (HR 0.59, 95% CI 0.40–0.86). Neoadjuvant treatment was also associated with an overall survival (OS) benefit (HR 0.63, 95% CI 0.32–1.24).

The phase III IPSOS trial is another study with potential practicechanging findings that was presented in a Presidential Symposium. In this trial, patients with non-small-cell lung cancer (NSCLC) without actionable driver alterations and deemed ineligible for platinum-based chemotherapy receiving atezolizumab had longer OS durations than those receiving physician's choice of vinorelbine or gemcitabine (10.3 months versus 9.2 months; HR 0.78, 95% CI 0.63-0.97). Importantly, AEs were less common with atezolizumab, both those of grade 3-4 (16.3% versus 33.3%) and grade 5 (1% versus 2.7%).

Other data presented in Presidential Symposia include those from a phase III trial of adoptive cell therapy with tumour-infiltrating lymphocytes (TILs), an approach for which the previously available evidence was from phase I/II trials. In this study, patients with unresectable stage IIIC–IV

melanoma had longer progression-free survival (PFS) durations with TIL-based therapy than with ipilimumab (7.2 months versus 3.1 months; HR 0.5, 95% CI 0.35–0.72).

Another phase III trial with promising results is DeFi, in which patients with progressing desmoid tumours receiving the  $\gamma$ -secretase inhibitor nirogacestat had longer PFS durations than those receiving placebo (not reached versus 15.1 months; HR 0.29, 95% CI, 0.15–0.55). Nirogacestat was also associated with improvements in patient-reported outcomes, including pain severity.

Not all the trials presented in Presidential Symposia had positive results. In the randomized, placebo-controlled phase II KEYNOTE- 412 trial, the addition of pembrolizumab to chemoradiotherapy (concurrent and as maintenance therapy) was not associated with significant differences in EFS in patients with locally advanced head and neck squamous cell carcinomas. The phase III CodeBreak 200 trial met its primary end point of showing a PFS benefit for sotorasib over docetaxel in patients with advanced-stage KRASG12C-mutated NSCLC, but no significant differences in OS were observed.

A translational study worth mentioning addressed how air pollution drives the formation of  $\it EGFR$ -mutated NSCLCs. Although the role of environmental factors in cancer risk has been known for decades, this study provides mechanistic insight on the aetiology of lung cancer — including the identification of IL-1 $\beta$  as a potentially actionable signalling axis.

In summary, the first truly in-person ESMO Congress since the COVID-19 pandemic hiatus did not disappoint. We look forward to attending ESMO Congress in October 2023 in Madrid.

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