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IN BRIEF

LUNG CANCER

Dacomitinib delays disease progression

The findings of a phase III trial comparing the efficacy of the second-generation tyrosine-kinase inhibitor (TKI) dacomitinib with that of the first-generation TKI gefitinib in patients with newly diagnosed non-small-cell lung cancer reveal superior progression-free survival in the dacomitinib group (14.7 versus 9.2 months; $P<0.0001$). However, dacomitinib also substantially increased the risk of grade ≥3 adverse events (in 51% versus 30% of patients), including two treatment-related deaths in the dacomitinib group versus one in the gefitinib group.

ORIGINAL ARTICLE Wu, Y. L. *et al.* Dacomitinib versus gefitinib as first-line treatment for patients with EGFR-mutation-positive non-small-cell lung cancer (ARCHER 1050): a randomised, open-label, phase 3 trial. *Lancet Oncol.* http://dx.doi.org/10.1016/S1470-2045(17)30608-3 (2017)

THYROID CANCER

Cabozantinib effective in selected patients

The final overall survival (OS) analysis of data from the phase III EXAM trial reveal no siginificant improvement in OS with the tyrosine-kinase inhibitor cabozantinib, relative to placebo, in unselected patients with progressive medullary thyroid cancer. However, in an exploratory analysis, selected patients with tumours harbouring the RET^{M918T} mutation had a significant improvement in median OS in response to cabozantinib (44.3 months, versus 18.9 months in patients receiving placebo; $P=0.03$), indicating that cabozantinib is an effective treatment of patients with RET^{M918T}-positive disease.

ORIGINAL ARTICLE Schlumberger, M. *et al.* Overall survival analysis of EXAM, a phase 3 trial of cabozantinib in patients with radiographically progressive medullary thyroid carcinoma. *Ann. Oncol.* http://dx.doi.org/10.1093/annonc/mdx479 (2017)

BREAST CANCER

LAG3 expression indicates favourable outcomes

An analysis of prognostic biomarkers in patients with breast cancer has revealed a statistically significant association between the presence of lymphocyte activation gene 3 (LAG3)-expressing intraepithelial tumour-infiltrating lymphocytes (iTILs) and improved breast-cancer-specific survival (BCSS) outcomes (HR 0.71; 95% CI 0.56–0.90). Furthermore, a high proportion of PD-L1$^+$ (53%) or PD-1$^+$ (61%) tumours were infiltrated with LAG-3$^+$ iTILs. Notably, concurrent infiltration with LAG-3$^+$CD8$^+$ iTILs conferred even more favourable BCSS, thus supporting a role for combination immune-checkpoint inhibition in selected patients.

ORIGINAL ARTICLE Burugu, S. *et al.* LAG-3+ tumor infiltrating lymphocytes in breast cancer: clinical correlates and association with PD-1/PD-L1+ tumors. *Ann. Oncol.* http://dx.doi.org/10.1093/annonc/mdx557 (2017)

LUNG CANCER

SABR effective against oligometastatic disease

Data from a comparative phase II study reveal improvements in progression-free survival among patients with oligometastatic non-small-cell lung cancer (≤5 metastases) receiving consolidative stereotactic ablative radiotherapy (SABR) plus maintenance chemotherapy after induction chemotherapy, relative to those receiving chemotherapy alone (9.7 months versus 3.5 months; $P=0.01$). SABR, delivered to all disease sites, had no marked effect on the risk of adverse events, indicating a need for further trials of this approach in larger cohorts.

ORIGINAL ARTICLE Iyengar, P. *et al.* Consolidative radiotherapy for limited metastatic non-small-cell lung cancer. *JAMA Oncol.* http://dx.doi.org/10.1001/jamaoncol.2017.3501 (2017)