RESEARCH HIGHLIGHTS

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IN BRIEF

UROLOGICAL CANCER

Vinflunine is an effective maintenance therapy

Data from a phase II trial reveal the superiority of vinflunine as maintenance chemotherapy, relative to best-supportive care until disease progression, in patients with metastatic transitional-cell carcinoma of the urothelial tract following 4-6 cycles of cisplatin and gemcitabine. A total of 66% of patients in the vinflunine group had disease progression compared with 84% of patients who received best-supportive care after a median follow-up duration of 15.6 months, with a median progression-free survival duration of 6.5 months versus 4.2 months (P = 0.031). A total of 18% of patients in the vinflunine group had grade 3 or 4 adverse events, including neutropenia, asthenia or fatigue, and constipation, compared with none in the best-supportive care group. These findings indicate that vinflunine improves patient outcomes and is well tolerated; further studies of the role of vinflunine in this setting are therefore warranted.

ORIGINAL ARTICLE Garcia-Donas, J. et al. Maintenance therapy with vinflunine plus best supportive care versus best supportive care alone in patients with advanced urothelial carcinoma with a response after first-line chemotherapy (MAJA; SOGUG 2011/02): a multicentre, randomised, controlled, open-label, phase 2 trial. Lancet Oncol. http://dx.doi.org/10.1016/S1470-2045(17)30242-5 (2017)

PANCREATIC CANCER

ROCK inhibition sensitizes preclinical models

The findings of a preclinical study, involving both genetically engineered and patient-derived mouse models of pancreatic cancer, indicate that the Rho kinase (ROCK) inhibitor fasudil is able to disrupt the extracellular matrix (ECM) of tumours, and thus improve exposure to subsequent treatment with chemotherapy. Crucially, a graded response to fasudil priming was observed, whereby the presence of high levels of fibrillar collagen in pretreatment tumour biopsy samples was able to predict a positive response to fasudil priming. In addition to effects on the ECM, fasudil was also shown to confer an increase in tumour blood flow, and hence drug delivery, owing to the clinically recognized vasodilatory effects of this agent. These promising preliminary results indicate a need for further investigations of this approach.

ORIGINAL ARTICLE Vennin, C. *et al.* Transient tissue priming via ROCK inhibition uncouples pancreatic cancer progression, sensitivity to chemotherapy, and metastasis. *Sci.* Transl Med. <u>http://dx.doi.org/10.1126/scitranslmed.aai8504</u> (2017)

HAEMATOLOGICAL CANCER

Nivolumab is effective in PCNSL and PTL

Data from a small series of four patients with primary CNS lymphoma (PCNSL) and one patient with primary testicular lymphoma (PTL), for whom no standard-of-care treatment options are available, indicate the effectiveness of the anti-PD-1 antibody nivolumab. This approach was selected based upon the high frequency of 9p24.1 copy-number alterations in these patients, which are associated with increased PD-L1 expression, in addition to the effectiveness of anti-PD-1 antibodies observed in patients with other forms of lymphoma. All five patients had clinical and radiographic responses to nivolumab, and four had near-complete resolution of symptoms upon commencement of treatment. Three patients remain progression free after 13–17 months of follow-up monitoring. The authors add that this approach is now being investigated in a phase II clinical trial in patients with PCNSL or PTL.

ORIGINAL ARTICLE Nayak, L. et al. PD-1 blockade with nivolumab in relapsed/refractory primary central nervous system and testicular lymphoma. Blood. <u>http://dx.doi.org/10.1182/blood-2017-01-764209</u> (2017)