IN BRIEF

DIAGNOSIS

Staging works!

Although most oncologists would agree that defining the stage of a cancer is useful in decision making and the establishment of prognosis, a team have recently formally shown this to be the case for patients with colon cancer. They prospectively assessed 536 patients who underwent resection for colon cancer with curative intent between 1999 and 2007. They established the clinicopathological variables using techniques such as CT to determine the radiological stage (T1, T2, T3 or T4 and N0, N1 or N2 disease). The investigators were able to clearly show that the clinical stage of a patient in the pre-operative setting is an independent prognostic indicator of long-term survival.

Original article Huh, J. W. *et al*. Prognostic value of preoperative radiological staging assessed by computed tomography in patients with nonmetastatic colon cancer. *Ann. Oncol*. doi:10.1093/annonc/mdr404

SURGERY

Circulating tumor cells predict for bad news

Patients who have undergone hepatectomy as treatment for hepatocellular carcinoma frequently experience disease recurrence within the first year after surgery. It has been speculated that this could be caused by circulating cancer stem cells (CSCs) that have escaped from the tumor prior to resection. Therefore, it is possible that measuring the levels of these CSCs could be used to determine the likelihood of recurrence. Indeed, a recent study has shown that patients with a higher than median level of CSCs had a higher rate of recurrence than those with CSC levels below the median. This CSC-based prediction was an independent prognostic marker for recurrence-free survival and could potentially be used to help determine the appropriate level and type of post-surgery therapy.

Original article Fan, S. T. *et al*. Prediction of posthepatectomy recurrence of hepatocellular carcinoma by circulating cancer stem cells: a prospective study. *Ann. Surg*. **254**, 569–576 (2011)

TARGETED THERAPIES

Patient samples used to determine therapy combinations

A group of investigators in Italy have developed what they have termed 'xenopatients' to help identify novel biomarkers for patients. They used genetically characterized samples taken from 85 patients with metastatic colorectal cancer. These *in vitro* 'xenopatients' responded in a similar way to the anti-EGFR antibody cetuximab as the patients from whom they had been derived. Interestingly, in the cetuximab-resistant tumors that also had wild-type status for the genes *KRAS, NRAS, BRAF* and *PIK3CA*, 36% of the samples had *HER2* amplification (in unselected tumors this was only found in 2.7% of cases). This amplification was also see in clinically non-responsive *KRAS* wild-type patients (13.6%). These results indicate that inhibition of HER2 and EGFR might offer a useful therapy option for these patients.

Original article Bertotti, A. *et al*. A molecularly annotated platform of patient-derived xenografts ('xenopatients') identifies HER2 as an effective therapeutic target in cetuximab-resistant colorectal cancer. *Cancer Discov*. doi:10.1158/2159-8290.CD-11-0109