EGFR expression in colorectal cancer

There is strong evidence that epidermal growth factor receptor (EGFR) plays a role in tumor progression. A new study by Spano *et al.* has examined the relationship between EGFR expression, clinicohistological characteristics and survival in patients with colorectal cancer. Although EFGR was not shown to be an independent prognostic variable, overexpression of the protein was significantly associated with tumor stage.

This retrospective study included 148 patients undergoing resection for colorectal cancer. Tumor samples were immunohistochemically stained for EGFR expression and a composite 'EGFR score' was generated to reflect the degree and intensity of staining. EGFR immunoreactivity was observed in the majority (97%) of samples and was considered high in 80% of cases. Overexpression of EGFR was significantly associated with tumor stage in a multivariate analysis; stage T3 tumors were more likely to overexpress EGFR than those of stage T4 ($P = 0.003$). Survival analysis was also carried out in 132 patients for whom follow-up data were available. No association was found between EGFR expression and survival in these individuals.

Acknowledging that the role of EGFR as a prognostic factor remains uncertain, the authors suggest that its association with tumor stage might be clinically relevant and they recommend that EGFR inhibitors should be investigated in this context.

Original article Spano J-P *et al.* (2005) Impact of EGFR expression on colorectal cancer patient prognosis and survival. *Annals Oncol* **16:** 102–108

Dietary magnesium and colorectal cancer risk

A large, prospective study from Sweden has suggested that a high intake of magnesium lowers the risk of colorectal cancer in women. These findings reflect experimental studies suggesting that magnesium may inhibit colorectal carcinogenesis.

Larsson *et al.* used questionnaire data provided by 61,433 women from the Swedish Mammography Cohort, which was established between 1987 and 1990. Using the Swedish National Food Administration Database, the investigators estimated the energy-adjusted daily magnesium intake of each participant and then categorized the women into quintiles on this basis. During a mean follow-up of 14.8 years, a statistically significant, inverse relationship was observed between magnesium intake and colorectal cancer risk ($P = 0.006$). Women in the highest quintile of magnesium intake had a lower risk of colorectal cancer than those in the lowest quintile (multivariate rate ratio 0.59, 95% CI 0.40–0.87), and a similar pattern was observed when colon cancer and rectal cancer were analyzed separately.

These results support the idea that increasing consumption of foods that contain magnesium—such as fruit and vegetables, whole grain foods and beans—can reduce the risk of colorectal cancer. The authors note, however, that randomized studies will be needed to examine the safety and potential benefits of magnesium supplementation.

Original article Larsson SC *et al.* (2005) Magnesium intake in relation to risk of colorectal cancer in women. *JAMA* **293:** 86–89