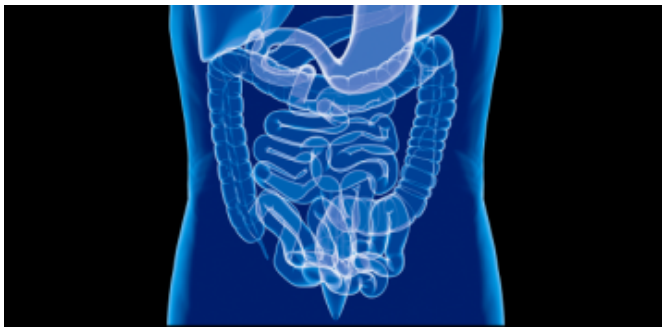
Long-term follow-up shows need for new chemotherapy strategies for rectal cancer

22 January 2014, by John Bean, Phd



Appearing in *Lancet Oncology*, long term results of EORTC trial 22921 with 10.4 years median follow-up show that 5-FU (fluorouracil) based adjuvant chemotherapy after preoperative (chemo)-radiotherapy for patients with cT3-resectable T4 M0 rectal cancer does not improve survival or disease-free survival.

EORTC trial 22921 explored the value of adding chemotherapy to preoperative radiotherapy either concurrently, or as an adjuvant, or both for patients with cT3-resectable T4 M0 rectal cancer. Between April 1993 and March 2003, 1011 patients were randomized to four treatment arms, 252 patients received preoperative radiotherapy alone, 253 patients received preoperative radiotherapy - chemotherapy, 253 patients received preoperative radiotherapy followed by adjuvant chemotherapy, and 253 patients received preoperative radiotherapy and chemotherapy followed by adjuvant chemotherapy.

Prof. Jean-François Bosset of the CHRU de Besancon - Hopital Jean Minjoz in France and lead author of this study says, "When we looked at the results after five years median follow-up, we saw that chemotherapy, regardless of when it was administered, significantly improved local control. However, adjuvant chemotherapy did not improve survival or disease-free survival, but we noted that the curves by adjuvant treatment did diverge progressively starting from year four for overall survival and from year two for disease-free survival. This suggested a possible delayed benefit, and we wanted to resolve this. The long term follow-up results suggest that new treatment strategies incorporating neoadjuvant chemotherapy are required, because adjuvant chemotherapy does not demonstrate any significant long term benefit on overall survival or disease-free survival."

Results of EORTC trial 22921 show that compliance with adjuvant chemotherapy was poor, and only 42.9%of the patients received the planned dose within the scheduled time frame. The 10-year overall survival rates were 51.8% (CI 47.0-56.4) for the patients receiving adjuvant chemotherapy and 48.4% (95% CI 43.6-53.0%) for those in the surveillance groups (HR=0.91, 95% CI 0.77-1.09, p=0.32). The 10-year disease free survival rates were 47.0% (CI 42.2-51.6%) for the patients receiving adjuvant chemotherapy and 43.7% (CI 39.1-48.2%) for those in the surveillance groups (HR=0.91, 95% CI 0.77-1.08, p=0.29).

Most relapses occur within five years, and at ten years local relapse rates were 22.4% (CI 17.1-27.6) with radiotherapy alone, 11.8% (7.8-15.8%) with neoadjuvant radiotherapy-chemotherapy, 14.5% (10.1-18.9%) with radiotherapy and adjuvant chemotherapy, and 11.7% (7.7-15.6%) with both adjuvant and neoadjuvant chemotherapy (p=0.0017).

There was no difference in cumulative incidence of distant metastases (p=0.52). The frequency of long term side effects did not differ between the four groups (p=0.22).

More information:
dx.doi.org/10.1016/S1470-2045(13)70599-0