

Four Drug Cocktail offers 60% more time to Advanced Pancreatic Cancer Patients

Patients taking FOLFIRINOX , a novel combination, lived 11.1 months which is 4.3 months longer than those given gemcitabine, the standard of care in advanced pancreatic cancer, according to a French study of 342 patients published in the May 12, 2011 issue of The New England Journal of Medicine. This is the highest reported survival data till date in advanced pancreatic cancer.

This was a phase 2-3 study known as PRODIGE 4/ACCORD 11. The phase 2 trial was conducted at 15 centers and this was expanded to 48 centers during phase 3. . Patients were 18 to 76 years of age, with ECOG performance status of 0-1. 342 patients with histologically and cytologically confirmed, measurable metastatic pancreatic adenocarcinoma who had not been previously treated with chemotherapy were randomly assigned to receive FOLFIRINOX (oxaliplatin 85 mg/m², irinotecan 180 mg/m², leucovorin 400 mg/m² and fluorouracil 400 mg/m² given as bolus followed by 2400 mg/m² given as 46 hour continuous infusion given every 2 weeks) or gemcitabine (1000 mg/m² weekly for 7 of 8 weeks and then weekly for 3 of 4 weeks).. Six months of chemotherapy was given in both group of patients who had a response.

The results were as follows:

Gemcitabine group – Median PFS of 3.3 months. Median OS of 6.8 months. After six months 66% reported a significant decline in their quality of life. FOLFIRINOX group – Median PFS of 6.4 months. Median OS of 11.1 months. After six months 31% reported a considerable decline in their quality of life.

Overall survival at six, 12, and 18 months was 75.9%, 48.4%, and 18.6%, respectively, in FOLFIRINOX patients, compared with 57.6%, 20.6%, and 6.0%, respectively, in the gemcitabine group.

Despite the stunning efficacy results, the widespread applicability of this regimen is somewhat doubtful because of the high risk of adverse effects in the FOLFIRINOX group. These patients experienced significantly more side effects, including neutropenia, febrile neutropenia, diarrhea, sensory neuropathy and pain. Despite the increased incidence of some adverse effects, patients in the FOLFIRINOX group had a slower degradation in the quality of life, likely because of the slower rate of disease progression. This indicates that a toxic but effective treatment is likely to be associated with improvements not only in survival but also in symptom associated outcome measures. It is likely that less toxic variants of the same chemotherapy backbone will be evaluated in future trials. Overall, for a disease as fatal as advanced pancreatic cancer, this is very welcome news and real sign of progress.

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