

**Material and methods:** 5-fluorouracil (FU) as continuous infusion at 200 mg/m<sup>2</sup>/day for the whole duration of chemotherapy, cisplatin and epirubicin both at 30 mg/m<sup>2</sup>, and gemcitabine at 800 mg/m<sup>2</sup> were administered every 14 days to patients with stage III or metastatic pancreatic adenocarcinoma who were chemotherapy-naïve, ≤75 years, performance status >50, and who had normal bone marrow, renal and liver function, till progressive disease (PD) or for a maximum of 6 months. Analyses were conducted in the intent to treat population.

**Results:** Between August 2003 and April 2005, 43 (27 or 63% metastatic) consecutive patients, median age 62 years, median performance status 75, were treated with dose-intense PEFG at a single institution. Accrual is ongoing. Partial response was yielded in 18 patients (42%). Among 33 patients with at least 6 months of follow-up, 18 were progression-free at 6 months from treatment start (PFS-6=54.5%) and median progression-free survival was 6.2 months. Three of 16 (18%) stage III patients became resectable after chemotherapy and were submitted to surgery. Radiotherapy concomitant to FU was administered to 10 stage III patients after the end of PEFG chemotherapy. To date, 169 courses (range 1–6, median 4) of dose-intense PEFG were delivered. Treatment is ongoing in 6 patients. Main grade 3–4 toxicity consisted of: neutropenia in 9%, anaemia, stomatitis, nausea/vomit in 3%, fatigue and diarrhoea in 2% of cycles. No grade >2 thrombocytopenia was observed. Dose intensity (mg/m<sup>2</sup>/week) was 13.5 for both epirubicin and cisplatin, 322 for gemcitabine and 1053 for FU.

**Conclusion:** Preliminary results of this study show that the outcome of patients with PA treated by dose-intense PEFG regimen is at least as good as that yielded by classical PEFG in terms of PFS (PFS-6: 54.5% vs. 42%; median PFS 6.2 vs. 5.4) and response rate (42% versus 38.5%). With respect to classical PEFG, dose intensity of gemcitabine was increased by 26% and dose intensity of cisplatin and epirubicin by 43%. Grade 3–4 hematological toxicity was consistently reduced (neutropenia 9% vs. 43%; thrombocytopenia 28.5% vs. 0%).

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PUBLICATION

#### Salvage therapy with bevacizumab, capecitabine, and mitomycin C (BECAM) for patients with metastatic colorectal or gastric cancer refractory to 5-fluorouracil, oxaliplatin, irinotecan, and cetuximab

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**Background:** Bevacizumab has been shown to improve efficacy when combined with irinotecan and 5-FU based chemotherapy in chemo-naïve patients (pts) as well as in combination with oxaliplatin in refractory pts with metastatic colorectal cancer (mCRC). This study was designed to explore BECAM, the combination of Bevacizumab together with the oral 5-FU prodrug Capecitabine and Mitomycin C (MMC), concerning tolerability and activity in heavily pretreated pts with mCRC or gastric cancer (GC).

**Methods:** BECAM consisted of a 1-hour-infusion of Bevacizumab [7.5 mg/kg] in addition to a previously reported schedule from our group consisting of bolus-injection of MMC [7 mg/m<sup>2</sup>], and Capecitabine [2 × 1000 mg/m<sup>2</sup>/day] taken twice daily from day 1–14. All medication was repeated from day 21 on.

**Results:** 16 pts with mCRC (n = 13) or GC (n = 3) were enrolled: 6/10 m/f, median age 62 years [41–76], median Karnofsky PS 80% [70–100]. Median number of previous chemotherapy regimen was 3 (range 2–6). All mCRC pts had received prior cetuximab.

Median duration of treatment was 3 cycles [1–6]. 15 pts were evaluable for toxicity: Main grade 3/4 toxicities were thrombocytopenia (3/15 pts), hypertension, and haemorrhage (1/15 pts each), of which only the bleeding episode was severe and caused cessation of Bevacizumab therapy. Thrombocytopenia, as known from MMC therapies, was the most common side-effect (8/15 pts ≥grade 2) leading to treatment delay in 40% of the cases (6/15 pts).

By contrast, symptomatic toxicities were rare and restricted to grade 1 with only one episode of grade 2 nausea. There was no allergic reaction to any of the substances used.

Efficacy analysis of 13 pts (3 too early) revealed partial remission (PR) in 2 pts (1 with GC and 1 with mCRC), and disease stabilisation (SD) in 5/13 pts (4 CRC and 1 GC) leading to a tumor control rate of 54%. 6/13 pts progressed early on treatment.

As expected in this stage of anticancer treatment, duration of response, if any, was rather short, resulting in a median PFS of 2.5 [2–7] months, and an OS of 3.5 [3–9] months.

**Conclusions:** Although patient numbers in this study were small, BECAM seems to be a regimen with a favourable toxicity profile and considerable activity in this group of heavily pretreated pts with mCRC or GC. Toxicity

was generally mild and did not affect patients' quality of life. However, as known from preceding studies with Bevacizumab, rare events of specific toxicity, in this case grade 4 haemorrhage, may be life-threatening.

## Genitourinary Cancer

Oral presentations (Thu, 3 Nov, 8.30–10.30)

### GU – Kidney and testis cancer

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ORAL

#### Randomized Phase III trial of the multi-kinase inhibitor sorafenib (BAY 43-9006) in patients with advanced renal cell carcinoma (RCC)

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**Background:** Sorafenib (BAY 43-9006), an oral multi-kinase inhibitor with effects on the tumor and vasculature, was shown in a Phase II trial to have anti-tumor activity in patients (pts) with metastatic RCC. The primary aim of this Phase III, double-blind, placebo-controlled trial was to assess the effects of sorafenib added to best supportive care (BSC) on overall survival (OS) in pts with confirmed, advanced clear-cell RCC.

**Patients and Methods:** Pts (ECOG PS 0–1) who had failed one prior systemic therapy for advanced RCC were stratified according to low or intermediate Motzer prognostic factor, and randomized to receive continuous oral sorafenib 400 mg bid or placebo with BSC. The primary endpoint was OS. Secondary endpoints were progression-free survival (PFS) (single, planned analysis after 363 progressions), best response (RECIST), health-related quality of life (HRQOL) and symptom response. Adverse events (AEs) were recorded by CTCAE v3.0.

**Results:** 905 patients have been randomized. The first interim analysis on 769 pts has been recently reported. Baseline characteristics for all 769 pts were: mean age, 58 yrs; ECOG 0:1, 47%:51%; Motzer prognostic factor low:intermediate, 51%:49%; prior cytokine therapy, 82%; prior nephrectomy, 93%. These were similar between treatment groups. Following a study modification to allow pts to cross from placebo to sorafenib, monitoring is continuing for OS analysis (to be reported at time of presentation). Median PFS (independent review) was 24 weeks for sorafenib and 12 weeks for placebo (hazard ratio sorafenib/placebo, 0.44;  $p < 0.000001$ ). At 3 months post-randomization, 75% of pts on sorafenib were progression free versus 43% of those on placebo. Changes in tumor vascularization, as assessed by Color Doppler ultrasonography, were highly predictive of PFS and OS. A statistical significant difference of observed mean changes between treatment arms in the PWB of the FACT-G and FACT-KSI-10 scores over time was seen. Drug-related AEs (sorafenib:placebo) included rash/desquamation (31%:11%), diarrhea (30%:7%), hand-foot skin reaction (26%:5%), and hypertension (8%:<1%). Fatigue (18%:14%) was not significantly different between sorafenib and placebo. No significant biochemical toxicity was observed.

**Conclusions:** Sorafenib significantly prolongs PFS compared with placebo in pts with previously treated advanced RCC, and is well tolerated with manageable side-effects. Full data will be presented at the meeting.

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ORAL

#### Phase II trial of sorafenib (BAY 43-9006) in combination with interferon alpha 2b in patients with metastatic renal cell carcinoma

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**Background:** Sorafenib (BAY 43-9006) is a novel, oral multi-kinase inhibitor that acts on Raf kinase and the receptor tyrosine kinases VEGFR-2 and PDGFR-β to mediate effects on the tumor and vasculature. In Phase II/III trials, sorafenib significantly prolonged progression-free survival (PFS) versus placebo, and had a favourable safety profile in patients with renal cell carcinoma (RCC). This Phase II, multicentre, open-label study was designed to determine the tolerability and response rate (RECIST) of sorafenib in combination with interferon (IFN) alpha-2b in patients with metastatic RCC. Secondary endpoints were PFS, response duration and overall survival, as well as changes in tumor NFκB, ERK, and VEGFR-2 activation and apoptotic protein expression.