

outcomes. However, owing to limited data and heterogeneity of the included studies, further RCTs are required to pursue.

6613

POSTER

Exposure-response analysis to identify abt-869 dose in hepatocellular carcinoma (HCC) patients

Y. Chiu¹, Z. Yan¹, N. Gupta¹, P. Diderichsen², D. Carson³, R. Pradhan¹, W. Awni¹. ¹Abbott Laboratories, Clinical Pharmacology and Pharmacometrics, Abbott Park, USA; ²Abbott Laboratories, Clinical Pharmacology and Pharmacometrics, Ludwigshafen, Germany; ³Abbott Laboratories, Oncology, Abbott Park, USA

Background: ABT-869 is an orally bioavailable, potent and specific inhibitor of all VEGF and PDGF family receptor tyrosine kinases. The objective of this analysis was to identify ABT-869 dose/dosing regimen for a potential phase-3 study in HCC patients.

Methods: An exposure-response (safety/efficacy) analysis was performed for patients (pts) enrolled in a phase 1 (multiple types of solid tumors) and 3 phase 2 monotherapy studies (non-small cell lung cancer (NSCLC), HCC and renal cell carcinoma (RCC)). Studies were conducted internationally in advanced/metastatic solid tumor pts to characterize ABT-869 efficacy/safety profile. Pts received ABT-869 until progressive disease or intolerable toxicity across all studies. Efficacy was assessed by RECIST criteria; safety by NCI-CTCAE, v3.0 and dose/dosing regimen was selected based on acceptable safety/efficacy responses. For drug exposure, plasma concentrations were fitted to a 1-compartmental model by the nonlinear mixed effects modeling (NONMEM) approach and various demographic covariates were tested. Trial abbreviation/registry numbers: Phase 2 trial of ABT-869 in HCC (NCT00517920); ABT-869 in subjects with NSCLC (NCT00716534); ABT-869 in Advanced RCC, after Sunitinib Failure (NCT00486538). All trials: ongoing; not recruiting; sponsored by Abbott Laboratories. ABT 869 is being developed in collaboration with Genentech.

Results: Among 224 pts in the analysis, 45% were Asian, 47% Caucasian and 8% other races; mean body weight was 72 kg (range 35–177 kg). Approximately 95% of pts received drug based on body-weight (mg/kg) while remaining pts had fixed dosing (mg). ABT-869 exposure was significantly ($p < 0.05$) associated with increased hypertension (HT) and skin toxicity events. Under weight-based dosing scheme, heavier pts had greater risk of toxicity as the exposure increased significantly. Transitioning from 0.25 mg/kg weight-based to 17.5 mg fixed dosing, exposure-safety response analysis showed that the predicted HT rate remains similar (33%) for pts with averaged body weight; however in pts with lower and higher body weights, the HT rate range is tighter for the fixed dose (30–36%) as compared to weight-based dose (23–44%). A similar trend was observed for skin toxicity. The model predicted the HT rate for HCC patients successfully and showed lower variability across patients for fixed dose.

Conclusions: A fixed 17.5 mg dose of ABT-869 is recommended for HCC patients based on the exposure predicted safety profile.

6614

POSTER

Clinical features of hepatocellular carcinoma patients underwent resection after concurrent chemoradiotherapy

I. Lee¹, J. Seong¹, J. Kim¹, K. Han², K. Kim³, J. Choi³, Y. Park⁴.

¹Yonsei University Health System, Department of Radiation Oncology, Seoul, South Korea; ²Yonsei University Health System, Department of Internal Medicine, Seoul, South Korea; ³Yonsei University Health System, Department of Surgery, Seoul, South Korea; ⁴Yonsei University Health System, Department of Pathology, Seoul, South Korea

Background: This study was to examine the clinical features of the patients who underwent hepatic resection after receiving concurrent chemoradiotherapy.

Materials and Methods: From January 2000 to October 2007, one hundred fifty six patients with hepatocellular carcinoma received concurrent chemoradiotherapy, and those patients who underwent hepatic resection on the primary site during follow-ups were 14 (9%). Most patients were received 45 Gy with the fraction size of 1.8 Gy and 2 patients treated with 43.2 Gy. The chemotherapy was administered by intra-arterial infusion with 5-FU and 3–12 cycles of chemotherapy were performed after the radiotherapy. The tumor size before the concurrent chemoradiotherapy was 5–20 cm and the mean value was 10.4 cm. In radiological examinations, the disease status before the operation was shown to be 2 complete remissions, 6 partial remissions and 4 stable diseases. Two cases showed the suspicious recurrence from imaging studies.

Results: The hepatic resections were performed between 1 month and 21 months after concurrent chemoradiotherapy. A lobectomy was

performed in most of the patients (13), and a bisegmentectomy was performed in the remaining 1 patient. In pathological findings, the ratios of necrosis were 5% to 100%. Four patients showed total necrosis and 12 patients (85.7%) showed the ratios of necrosis of 70% or higher. The resection margins were close to the tumor in 5 patients and 1 patient showed positive tumor resection margin. There were vessel invasions in 6 patients and capsular invasions in 5 patients. The median overall survival time was 28 months and the median disease free survival time was 19 months. The number of patients who were disease free after the operation was 3 (21.4%), and the number of patients with intrahepatic metastasis was 6 (42.9%) and distant metastasis was 5 (35.7%). Findings of vessel infiltration and capsule infiltration in univariate analyses were significant for survival rates ($p = 0.006$, 0.043), and disease free survival rates ($p = 0.014$, 0.004). In multivariate analyses, vessel infiltration was a significant factor for survival rates ($p = 0.01$), and capsule infiltration was a significant factor for disease free survival rates ($p = 0.01$).

Conclusions: Unresectable hepatocellular carcinoma could be resectable after concurrent chemoradiotherapy in selected patients. However, more clinical cases and prospective studies are necessary.

6615

POSTER

Advanced biliary tract cancer in Peruvian population

P. Montenegro¹, J. Schwarz¹, L. Casanova¹, J. Leon¹, C. Flores¹. ¹Inen, Oncologia Medica, Lima, Peru

Background: Biliary tract cancer (BTC) is not common cancer, but there are high incidence in some areas of Latin America and Asia, BTC includes intrahepatic cholangiocarcinoma, Klatskin tumor, extrahepatic cholangiocarcinoma, gall bladder cancer, and ampulla of Vater cancer. The standard treatment has not been established at the moment, traditional chemotherapy (5FU-based) has shown minimal activity and does not prolong survival, and each cancer has different responsiveness to anti-cancer treatment. We evaluated 178 patients (pts) with advanced biliary tract cancer.

Methods: Retrospective reviewed 178 BTC pts between (2000–2005).

Results: 178 pts (112 female, 42 male) were evaluated, median age 60 (range 16–91), median karnofsky performance status 70%. 151 cases (84%) were associated with gallstones, only 1 case present polyps. The clinical feature present most frequently was abdominal pain 81.5% (145 pts), weight loss 48.8% (87 pts), jaundice 43.3% (77 pts), mass in the right upper quadrant 36.5% (65 pts), itching 5.1% (9 pts), anorexia 19.7% (35 pts).

Primary tumor sites were gallbladder (38%), extrahepatic bile duct (29%), intrahepatic bile duct (9%), ampulla of Vater (2%), not specified (22%).

Predominant localizations of metastases were liver 70%, others 30% (lymph nodes, peritoneum).

Only 13.5% (24 pts) received chemotherapy using 5-FU-based chemotherapy the rest received best medical support. The patients that received chemotherapy had median survival of 4.1 months and the patients that only received best support had 3.4 months of median survival.

Conclusions: Our analysis showed that in BTC, gallbladder cancer is most common with predominant liver metastases and clinical features similar to previous published articles, treatment with chemotherapy produced modest benefit in survival.

6616

POSTER

Serial alpha-fetoprotein evaluation and survival in hepatocellular carcinoma patients treated with sorafenib

N. Personeni¹, S. Bozzarelli¹, L. Giordano², L. Rimassa¹, T. Pressiani¹, M.C. Tronconi¹, F. Scalfani¹, C. Carnaghi¹, A. Santoro¹. ¹Istituto Clinico Humanitas, Medical Oncology, Rozzano (Milan), Italy; ²Istituto Clinico Humanitas, Biostatistical Unit, Rozzano (Milan), Italy

Background: There is poor correlation between conventional radiologic response criteria and treatment outcomes of patients with advanced hepatocellular carcinoma (HCC). The prognostic value of serial α -fetoprotein (AFP) measurement has not been assessed in HCC patients receiving sorafenib. Aim of this study was to examine AFP trends as a surrogate endpoint for survival.

Patients and Methods: Serum AFP was prospectively collected at baseline and during treatment, in conjunction with radiological assessment. In patients with increased AFP levels (≥ 8 U/mL) at baseline, we defined AFP response as a decrease $\geq 20\%$ in AFP value after 8 weeks from start of sorafenib treatment. Kaplan-Meier plots were constructed for progression-free survival (PFS) and overall survival (OS), and compared with the Log rank test to evaluate the correlation with AFP response.

Results: Overall 129 patients were evaluated, of which 21 had normal baseline AFP levels, remaining stable throughout treatment course. Median PFS and OS were longer in AFP responders than in non-responders: