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Abstracts from the Asian Oncology Summit 2012

AOSOP1 ANALYSIS OF PROGNOSTIC FACTORS IN ELDERLY PATIENTS WITH METASTATIC GASTRIC CANCER GIVEN TAXOL, CISPLATIN, AND S1 COMBINATION CHEMOTHERAPY

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Background. The taxol, cisplatin, and S1 combination has shown promising results in patients with stomach cancer, but we do not know the exact efficacy and toxicity profiles of this three-drug regimen in elderly patients with gastric cancer.

Methods. In this non-randomised phase 2 trial, we administered taxol (80 mg/m^2 intravenously on days 1 and 8), cisplatin (30 mg/m^2 intravenously on days 1 and 8), and S1 (35 mg/m^2 orally twice a day on days 1–14) in a 3 week cycle to patients older than 65 years with recurrent or metastatic gastric cancer.

Findings. From September 2007 to April 2011, 28 patients (22 men, median age 69 years: range 65–77) were enroled. The common sites of metastatic lesions were abdominal lymph nodes (57.1%), liver (21.4%), peritoneum (17.9%), and lungs (7.1%). The median number of cycles was 3.5 (range 1–8). Fifty per cent of patients had a response: one (3.6%) had a complete response and 13 (46.4%) had a partial response. Median overall survival (OS) was 7.6 months (SE 1.46). All 28 patients were assessed for safety, performance status, and body mass index (BMI), and had laboratory blood tests. This treatment was moderately tolerated with grade 3/4 neutropenia in 67.9% of cycles, grade 3 anaemia in 21.4%, and thrombocytopenia in 3.6%. Non-haematological toxicities were grade 3 general weakness in 25.0% of patients, grade 4 diarrhoea in 3.6%, and grade 2 pneumonia in 10.7%. Compared with younger patients, more grade 3/4 neutropenia, anaemia, and general weakness were noted. Treatment-related mortality was 3.6%. Only BMI was correlated with OS by use of Cox regression analysis (relative risk 0.865, 95% confidence interval (CI) 0.751–0.995, $p = 0.043$).

Interpretation. The combination of taxol, cisplatin, and S1 in elderly patients with gastric cancer resulted in a fairly high disease response rate and survival duration that were similar to those in younger patients, but the more frequent neutropenia, anaemia, and general weakness were seen as barriers to treatment in elderly patients. The chemotherapy regimen must be used with caution, especially in elderly patients with low BMI.

The authors declared no conflicts of interest.

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AOSOP2 ASSOCIATION OF CAVEOLIN-1 GENOTYPES WITH SUSCEPTIBILITY TO ORAL CANCER IN TAIWAN

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Background. Caveolin-1 (Cav-1), a proposed candidate tumour suppressor, plays a regulatory role in several signalling pathways. The aim in this hospital-based case–control study was to investigate the association of Cav-1 polymorphisms with risk of oral cancer in a central Taiwanese population.

Methods. Six hundred patients with oral cancer and 620 age-matched and sex-matched healthy controls were genotyped and analysed by use of polymerase chain reaction–restriction fragment length polymorphism.

Findings. There were significant differences between oral cancer and control groups in the distributions of Cav-1 genotypes ($p = 1.7 \times 10^{-18}$ and 2.6×10^{-4}) and allelic frequencies in the Cav-1 G14713A (rs3807987) and T29107A (rs7804372) polymorphisms ($p = 3.3 \times 10^{-19}$ and 9.5×10^{-6}, respectively). In the combined genotype analysis, individuals who had GG/AT or GG/AA at Cav-1 G14713A or T29107A had a 0.72-fold (95% confidence interval = 0.52–0.99) decreased risk of oral cancer compared with those with GG/TT, whereas any other combinations were associated with increased risk. The presence of metastasis was also correlated with both Cav-1 G14713A AA and C-1 T29107A TT genotypes.

Interpretation. Cav-1 seems to have a role in oral cancer; the A allele of Cav-1 G14713A is associated with increased risk, A allele of Cav-1 T29107A is protective, and AA/TT on these two polymorphisms might be the combined genotype that is associated with the most risk for the development of oral cancer. These variants could be novel risk markers for early detection and prediction of distant metastasis.

The authors declared no conflicts of interest.

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AOSOP3 COMBINATION OF BEVACIZUMAB AND ERLOTINIB IN THE TREATMENT OF PATIENTS WITH ADVANCED HEPATOCELLULAR CARCINOMA WITH SORAFENIB-REFRACTORY DISEASE: RESULTS OF A PILOT PHASE II STUDY

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Background. The combination of bevacizumab and erlotinib has shown promising clinical outcomes as the first-line treatment for patients with advanced hepatocellular carcinoma (HCC). We aimed to assess the efficacy and safety of using the combination as a second-line treatment for patients with advanced HCC who had failed first-line sorafenib treatment.

Methods. Eligible patients with advanced HCC and documented radiological evidence of disease progression with sorafenib treatment were recruited. All patients received bevacizumab at 10 mg/kg every 2 weeks with erlotinib at 150 mg daily for a maximum of six cycles. Response assessments using both Response Evaluation Criteria in Solid Tumours (RECIST) and modified RECIST criteria were done after every 6 weeks. The primary end-point was the rate of clinical benefit and the major secondary end-points were response rate, time-to-progression (TTP), and overall survival (OS).

Findings. The trial was stopped during the first stage according to the pre-set statistical criteria with 10 patients recruited. The median age was 47 years (range 28–61) and all patients had Eastern Cooperative Oncology Group (ECOG) performance status 1. Eighty per cent of patients were chronic hepatitis B carriers and all patients had Child A cirrhosis. None of the 10 enroled patients achieved response or stable disease. The median TTP was 1.81 months (95% confidence interval [CI], 1.08–1.74) and OS was 4.37 months (95% CI, 1.08–11.66). Rash (70%), diarrhoea (50%), and malaise (40%) were the most common toxicities.

Interpretation. The combination of bevacizumab and erlotinib was well tolerated but had no activity in an unselected sorafenib-refractory population of patients with advanced HCC.

The authors declared no conflicts of interest.

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AOSOP4 COMPARISON OF VOLUMETRIC EVALUATION FOR TUMOUR RESPONSE WITH RECIST IN METASTATIC COLORECTAL CANCER WITH LIVER METASTASES ONLY

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Background. Response Evaluation Criteria in Solid Tumours (RECIST) is the most widely acceptable assessment tool for assessing tumour response. However, volumetric evaluation (VE) was shown to be even more accurate than was RECIST in recent studies.

Methods. VE of liver metastases from patients with metastatic colorectal cancer (mCRC) was performed by manual contouring of all liver metastases on computed tomography (CT) images of 5 mm slice thickness on the Eclipse Treatment Planning System at baseline and after chemotherapy with FOLFOX4 ($n = 18$) with or without cetuximab ($n = 14$) on 41 pairs of CT images in 32 patients treated at the Queen Mary Hospital from January 2008 to December 2010. The aggregate tumour volumes were then compared with the baseline for tumour response. Best objective response (OR) by use of VE (PD, >73% compared with nadir; SD, between PD and PR; PR <65% compared with nadir; CR, complete disappearance) was defined according to previous reports. Cohen kappa was used to compare OR based on VE, RECIST, and Independent Radiologist Review Committee (IRRC). Pearson correlation was calculated for association between VE and RECIST after cubic root transformation of the aggregate tumour volumes. Logistic regression was done for any clinical and radiological factors, accounting for the difference in OR between VE and RECIST.

Findings. OR by VE did not match with that by use of RECIST in six pairs of comparisons. However, VE showed good agreement with RECIST ($\kappa = 0.755$) and also better agreement with IRRC than did RECIST ($\kappa = 0.547$ and $\kappa = 0.462$, respectively). Pearson correlation showed an excellent correlation between VE and RECIST ($r^2 = 0.968$, $p < 0.001$). Subgroup analysis showed better agreement for enlarging lesions than for shrinking lesions ($r^2 = 0.974$ and $r^2 = 0.887$, respectively). No factor was predictive of the difference in OR between VE and RECIST.

Interpretation. VE showed good agreement with RECIST in OR evaluation. It might be a better method than RECIST when evaluating conglomerate matted liver metastases.

The authors declared no conflicts of interest.

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AOSOP5 BIRTH RATES AMONG MALE CANCER SURVIVORS: A POPULATION-BASED COHORT STUDY

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Background. With early diagnosis, improvements in treatment of cancer, and better survival rates, more men of reproductive age are long-term survivors. The trends in birth rates among male cancer survivors were assessed in this study.

Methods. From the Swedish Multi-generation Register and the Cancer Register we identified 67,740 men aged 70 years or younger with a history of cancer, for whom we calculated birth rates relative to the background population (standardised birth rates, SBRs). Independent factors associated with reduced birth rates among cancer survivors were estimated by use of Poisson modelling.

Findings. Overall 7.3% of men with a history of cancer had partners who gave birth after their diagnosis. These men were 23% less likely to father a child than were those in the background population. Men with breast, skin, and thoracic cancers had SBRs similar to the background population, whereas those with prostate, brain and eye, reproductive, and haemopoietic cancers were the most affected, having low SBRs. Nulliparous men were significantly more likely to father a child (SBR 0.80, 95% confidence interval (CI) 0.78–0.82) than were those who were parous (SBR 0.69, 95% CI 0.66–0.72), and at seven of 12 sites nulliparous men had birth rates similar to men in the background population. Cancer site (prostate), age at onset of cancer (<12 years), parity status (parous), current age (>40 years), and a recent diagnosis were significant and independent predictors of a reduced probability of fathering a child after diagnosis.

Interpretation. Male cancer survivors are less likely to father a child than are men in the background population. Fertility is affected by the cancer site, age of onset, and parity status at diagnosis.

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