(22.3 vs 7.9 months, p=.002), with SUV < 4.5 (30.5 vs 14.3 months, p=.042) and SUV < 10 (20.2 vs 10.6 months, p=.043). In a multivariate analysis, SUV > 4.5 and non-epithelial histology were associated to poor prognosis, with an hazard ratio (HR) of death of 2.48 (95% CI 1.03−5.94) and 3.72 (95% CI 1.54−9.01), respectively. SUV > 10 had borderline significance (HR 1.97, 95% CI 0.99−3.91).
Conclusions: SUV greater than 4.5 and non-epithelial histology were poor risk factors in our series of MPM patients. SUV > 10 had borderline significance. Baseline FDG-PET should be considered to stratify pts in clinical trials.

6557 POSTER

Second-line chemotherapy with gemcitabine and uracil/tegafur for relapsed or refractory non-small cell lung cancer: a phase II study

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Background: Second-line chemotherapy with docetaxel has been shown to improve survival and quality of life (QoL) in patients with advanced non-small cell lung cancer (NSCLC). Gemcitabine (GEM) and uracil / tegafur (UFT) are both effective agents for NSCLC. The objectives of this study were to evaluate the efficacy, toxicity, and QoL status in NSCLC patients treated with GEM and UFT as second-line chemotherapy.
Methods: Patients with relapsed or refractory NSCLC, aged <80, with good performance status (PS) were eligible after giving informed consent. The treatment consisted of UFT (400 mg-2) on day 1 through 14 with intravenous infusions of GEM (900 mg-2) on day 8 and 15 of each 21-day cycle for up to 6 cycles of treatment. Common Terminology Criteria for Adverse Events v3.0 was used for toxicity assessment, and EORTC QLQ-C30/LC13 for QoL monitoring.
Results: Thirty-five patients with mean age of 61.7 years were enrolled. Twenty-five were male, and 10 were female. Twenty-two/11/1/1 patients had adenocarcinoma/squamous cell carcinoma/large cell carcinoma/ unclassified carcinoma, respectively. Total number of delivered courses was 97, with an average of 2.8 courses per patient. Overall response rate was 20% with 7 partial-response and 14 stable-disease. Median survival time was not yet reached with median follow-up period of 10.5 months. Median duration of response was 6.6 months. Grade 3 or 4 hematological toxicities included leukopenia in 10 patients, neutropenia in 14 patients, anemia in 5 patients, and thrombocytopenia in 3 patients. Three grade 3 diarrhea and 2 grade 3 febrile neutropenia were also reported. QLQ-C30 results showed that the patients maintained the baseline in global health status / QoL and functional scales with significant reduction of pain, insomnia, and financial difficulties in symptom scales / items after treatment. QLQ-LC13 also showed significant improvement of pain in other parts and worsening of peripheral neuropathy.
Conclusions: The GEM and UFT combination is well tolerated with comparable activity as second-line chemotherapy in relapsed or refractory NSCLC patients, and QoL assessment revealed symptomatic efficacy of this treatment.

6558 POSTER

Pharmacoeconomic analysis of erlotinib as second-line treatment of advanced non-small cell lung cancer in Taiwan

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Background: Lung cancer is the most commonly diagnosed cancer and the leading cause of cancer-related mortality in Taiwan. Oral erlotinib offers proven efficacy by prolonging survival, delaying disease progression, and improving tumor-related symptoms as well as quality of life in previously treated patients with NSCLC. The objective of this pharmacoeconomic analysis is to access the cost-effectiveness of erlotinib compared to docetaxel and pemetrexed as second-line treatment of advanced NSCLC in Taiwan from payer's [Bureau of National Health Insurance (BNHI)] perspective.
Methods: A health state-transition economic model was developed to estimate incremental cost impact and the effectiveness in terms of quality-adjusted life years (QALYs). Clinical outcomes were derived from the pivotal trial of erlotinib vs. best supportive care (BR.21). Progression-free survival and post-progression were modeled by applying the actuarial method of Kaplan-Meier analysis with a monthly time scale of 24 months. Direct medical costs associated with drugs and drug administrations were calculated from the 2006 BNHI Fee Schedule. Resource utilizations and adverse events management were based on an expert panel survey conducted among 6 expert oncologists in Taiwan. Health-related utility scores were obtained from a utility study conducted among 154 people in the UK by applying the EQ-5D York tariff and the EQ-5D visual analogue scales. Incremental cost-effectiveness ratios (ICER) were calculated by applying a 5% discount rate. One-way sensitivity analyses were performed on key model parameters.
Results: Compared to docetaxel vs. pemetrexed, erlotinib demonstrates significant overall cost savings of NTD$8,446 vs. NTD$118,932 with survival benefits of 0.046 vs. 0.036 QALYs respectively. The ICER of erlotinib vs. docetaxel ranges from dominant (lower cost, better survival) to NTD$24,838/QALY for extended treatment duration. Erlotinib remains dominant compared to pemetrexed throughout sensitivity analysis.
Conclusions: From a Taiwan BNHI perspective, this pharmacoeconomic analysis shows that the use of erlotinib as second-line treatment of advanced NSCLC would not only save direct medical costs but also improve health outcomes compared to docetaxel and pemetrexed.

6559 POSTER

A prognostic index (PI) for predicting lung cancer patients with multiple brain metastases who may not benefit from whole brain radiotherapy (WBRT) due to early death

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Background: Palliative WBRT is often recommended in the management of multiple brain metastases. Time from initial assessment to benefit from WBRT may be as much as 6 weeks. Patients with a shorter survival may not benefit from WBRT. Identifying this group of patients at the time of assessment is difficult. The purpose of this study was to develop a PI that identifies those lung cancer patients with brain metastases who will not benefit from WBRT due to early death (death within 6 weeks).
Materials and Methods: The medical records of lung cancer patients who were to receive WBRT for multiple brain metastases over a 10-year period were reviewed and patients were classified as either having died within 6 weeks or having lived beyond 6 weeks. Potential prognostic indicators (age, ECOG performance status, weight loss >10%, histology, primary disease control and systemic disease status) were evaluated for correlation with death within 6 weeks of assessment. A PI was constructed by modelling the survival classification to determine the contribution of these factors towards a shortened survival.
Results: Of the 275 patients recommended to have WBRT for the management of multiple brain metastases from lung cancer, 64 (23.22%) died within 6 weeks. Prognostic factors predicting early death were performance status (ECOG > 2) and systemic disease status. Patients with a high PI score (>13) were at higher risk of death within 6 weeks.
Conclusion: 23% of patients died prior to benefit from WBRT. ECOG performance status and systemic disease status were the most predictive for early death. The PI may ultimately be a valuable decision tool for recommending WBRT for individual lung cancer patients with multiple brain metastases. Further validation is required to ensure the accuracy of this PI.