9070 POSTER

Whole Brain Radiotherapy for Inoperable Brain Metastases From Non-small Cell Lung Cancer − Individual Versus Community Uncertainty

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Introduction: Patients with inoperable brain metastases from non-small cell lung cancer (NSCLC) are a very poor prognosis group. The use of whole brain radiotherapy (WBRT) polarises opinion, with many clinicians supporting its use and many opposing. Decisions regarding WBRT use based on factors such as performance status and response to initial treatment with steroids may be valid but have never been investigated as part of a randomised trial.
Methods: The MRC QUARTZ trial for patients with inoperable brain metastases from NSCLC, is evaluating whether WBRT can be omitted without detriment in terms of survival and quality of life. All patients receive steroids and optimal supportive care (OSC), and are randomised to WBRT or not. The trial's primary endpoint is quality adjusted life years (QALYS).
Results: QUARTZ has been well supported with 76 centres in the UK and Australia, but lower than expected recruitment. Screening logs suggest a major reason for this has been a lack of uncertainty about the use of WBRT in individual patients. Logs collected between February and December 2010 for 235 patients reveal only 85 were randomised. Of the 150 patients not randomised, the clinician was certain WBRT would be beneficial for 48, and certain it should not be used in 30. In addition, discussions with QUARTZ centres suggest a large percentage of patients decline the trial because they either definitely do or definitely do not want WBRT.
Due to the lack of any initial randomised data to inform trial decisions and discussions, QUARTZ released interim data on the first 151 patients randomised. These data suggest that omitting WBRT may be a reasonable treatment decision, with no obvious detriments in either duration of survival or quality of life (QALY of 30 days in the OSC alone group, and 31 days in the OSC+WBRT group).
Conclusion: QUARTZ interim data are early data which cannot provide any definitive conclusions, but do strongly support the need for the trial to continue. QUARTZ remains a difficult trial to recruit to, but is vital in order to reduce the level of uncertainty surrounding the role of WBRT in NSCLC patients with inoperable brain metastases. Therefore the debate "This house believes that radiotherapy in brain metastases does matter" at this 2011 European Multidisciplinary Cancer Congress, is both welcome and timely.

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Is Surgical Resection of M1a Lung Adenocarcinoma With Metastatic Pleural Nodules Really a Useless Choice?

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Background: Revised 7th TNM classification of NSCLC up-staged a lung adenocarcinoma with metastatic pleural nodules from a T4 to a M1a stage. This study attempts to validate an effect of the surgical resection of a primary lung lesion to the survival of lung adenocarcinoma with metastatic pleural nodules.
Material and Methods: We retrospectively analyzed the survival of patients who were surgically confirmed as a lung adenocarcinoma with metastatic pleural nodules from 1995 to 2010. The survival was compared by types of surgery that they underwent, treatment with chemotherapy or tyrosine kinase inhibitor (TKI). Surgical resection included wedge resection, lobectomy and pneumonectomy.
Results: There were 58 patients who had surgically proven malignant pleural nodules with lung adenocarcinoma; of these, 44 patients underwent only an "open and closure" exploratory thoracotomy (non-Surgery group); and 14 patients underwent an surgical resection of a primary lung adenocarcinoma (Surgery group). 4 patients underwent a wedge resection, 8 patients underwent a lobectomy and 2 patients underwent a pneumonectomy. The median survival of the total 58 patients was 1515 days; Non-Surgery group was 1355 days and Surgery group was 2798 days ($p = 0.054$). Comparing with non-chemotherapy group, the median survival of chemotherapy group was 1515 days which was even shorter than non-chemotherapy group; 1614 days ($p = 0.957$). However, when comparing with non-TKI therapy group, the median survival of TKI therapy group was 1832 days which was longer than non-TKI therapy group; 1515 days ($p = 0.187$). But we couldn't get any statistical significances due to a small study population.
Conclusions: Comparing with non-Surgery group, Surgery group showed 1443 days longer median survival and TKI therapy group showed 317 days longer median survival than non-TKI therapy group. Therefore, patients of lung adenocarcinoma with metastatic pleural nodules should be treated more aggressively with surgical intervention and TKI treatment. And more large study population should be analyzed to evaluate the efficacy of surgical resection and TKI treatment for the lung adenocarcinoma with metastatic pleural nodules.

Characteristic	No-surgery group	Surgery group	Total
Patient number	44	14	58
Mean age	59±12(29−80)	57±12(40−80)	
Male	23	5	28
Female	21	9	30
Surviving/Dead	17/27	11/3	28/30
Chemotherapy/No chemotherapy	33/11	9/5	42/16
TKI therapy/No TKI therapy	20/24	4/10	24/34

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Pemetrexed (Pem) Maintenance Therapy in Elderly Patients (Pts) With Good Performance Status (PS) − Analysis of PARAMOUNT Phase III Study of Pem Versus Placebo in Advanced Nonsquamous Non-small Cell Lung Cancer (NSCLC)

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Background: In the PARAMOUNT trial (NCT00789373), pem continuation maintenance after pem-cisplatin induction was effective and well tolerated in pts with advanced nonsquamous NSCLC. We further investigated efficacy and tolerability of pem maintenance therapy in elderly pts.
Methods: After 4 cycles of pem (500 mg/m^2) and cisplatin (75 mg/m^2) induction, 539 non-progressing pts with PS 0/1 were randomized (2:1, stratified for stage, PS, induction response) to maintenance pem (500 mg/m^2, day 1, 21-day cycle, with standard vitamin supplementation; $n = 359$) or placebo ($n = 180$) until progression. The primary endpoint was progression-free survival (PFS), measured from randomization. Subgroup analyses were done for ⩾70 and <70 yrs cohorts.
Results: Pt characteristics were balanced between arms within the ⩾70 cohort ($n = 92$, median age=73 yrs) and the <70 cohort ($n = 447$; median age=60 yrs). The cohorts had comparable pt characteristics except for PS (PS 0/1 in ⩾70: 20%/79%; <70: 34%/66%) and sex (M/F ⩾70: 66%/34%; <70: 56%/44%). The pem arm of the ⩾70 cohort received a mean of 5.5 cycles (range 1−17; dose intensity 92%) and the placebo arm 3.7 cycles. The pem arm <70 cohort received a mean of 4.8 cycles (range 1−19, dose intensity 95%), and the placebo arm 4.3 cycles. For the ⩾70 cohort, pem reduced the risk of progression by 65% (HR = 0.35, 95% CI: 0.20–0.63; $P = 0.00041$); median PFS (92 pts, 50 events) was 6.4 mo (95% CI: 3.3−NE) for pem and 3.0 mo (95% CI: 1.5−4.1) for placebo. For the <70 cohort, pem reduced the risk of progression by 31% (HR = 0.69, 95% CI: 0.54–0.90); median PFS was 4.0 mo (95% CI: 2.9−4.2) for pem and 2.8 mo (95% CI: 2.6−3.5) for placebo. More pts ⩾70 than pts <70 (21% vs 7%) experienced drug-related grade 3/4 laboratory CTC AEs (primarily anemia and neutropenia). Transfusions (29% pem, 10% placebo) and CSF use (14% pem) in the ⩾70 cohort were also higher than <70 cohort (pem/placebo transfusions: 11%/4%; CSF use: 4% pem). Non-laboratory grade 3/4 AEs were not significantly higher in pem vs placebo in either cohort except fatigue (4% pem, 0% placebo) in the <70 cohort.
Conclusions: Pem continuation maintenance following pem-cisplatin induction is an effective treatment in ⩾70 pts and <70 pts with good PS. Elderly pts on the pem arm experienced more grade 3/4 hematologic toxicities than younger pts, potentially due to greater number of cycles received and worse PS. The toxicity was manageable and consistent with the known safety profile of pem in elderly pts.