



What's hot that the other lot got

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TREATMENT OF INTRACRANIAL DISEASE IN ALK POSITIVE LUNG CANCER

ALK mutation is found in 2-7% of non-small cell lung cancers. The tyrosine kinase inhibitor (TKI) crizotinib is first line therapy but unfortunately has low blood brain barrier penetration and 40-50% of patients can develop brain metastasis while on crizotinib. The next generation of TKI theoretically have greater blood brain barrier penetration. Crinò et al (*JCO, 2016 vol. 34 no. 24 2866-2873*) present the Novartis supported ASCEND-2 findings in which 140 patients from 51 centres were treated with ceritinib. The patients were performance status less than 2, ALK positive and had disease that had progressed despite both platinum based chemotherapy and crizotinib; 71% of subjects had brain metastasis, of which 72% had received radiotherapy. Analysis of a subgroup of 20 patients with active brain lesions showed an investigator assessed intracranial disease control rate (ICDR) of 80% (95% CI, 56.3% to 94.3%). Whole body response in the full analysis set gave a disease control rate (DCR) of 77.1% (95% CI, 69.3% to 83.8%). 45.7% of patients experienced grade 3-4 adverse drug events (AE), 7.9% of patients dropped out and 54.3% had a dose reduction due to AE. This phase II single arm study shows ceritinib may be an effective treatment in patients with advanced ALK positive NSCLC as a third line agent.

ISONIAZID RESISTANT TB IN LONDON

North London has been an area of high prevalence of isoniazid resistant TB since 1995. Satta et al (*BMC medicine, 2016; 14:117*) have used whole gene sequencing (WGS) to analyse one cluster of 16

patients and 3 control samples. The hypothesis is that mutations found in the London strains confer a survival advantage for the bacteria. Results showed isoniazid resistant strains had no difference in fitness or mutation rate to reference strain. InhA C was the most common mutation; deletions in 16 genes and 563 single nucleotide polymorphisms (SNP) were isolated. The role of these SNPs is not fully understood and may explain the persistence of these isoniazid resistant strains in the community.

SABR OR MINIMALLY INVASIVE SURGERY FOR NSCLC

Paul et al. (*BMJ 2016;354:i3570*) followed 5821 patients who underwent stereotactic radiotherapy (SABR), wedge resection or segmentectomy between 2007 and 2012. This large American cohort was recruited from medicare data, all had T1-2 N0 M0 non-small cell lung cancer. Propensity matching was used to try to limit differences between cohorts; matched patients with tumours <2cm showed a significant difference in overall survival, favouring surgery (HR 1.8. 1.33 to 2.43) However, there was no significant difference in cancer specific survival (1.32, 0.77 to 2.26). For the propensity matched patients with tumours <5cm there was significant increased overall and cancer specific survival in those receiving surgery. The authors recognise that this is a retrospective study and despite the propensity matching a randomised control trial is required to be able to answer the question of whether SABR outcomes are comparable to surgery in operable patients with resectable tumours.

QUALITY OF PALLIATIVE CARE IN CANCER AND NON-CANCER GROUPS

Hofstede et al (*Palliative medicine 2016 Vol 30 (8) 780-788*) used data from the Dutch National Improvement Programme for Palliative Care 2012-2016 to contact bereaved relatives. 456 responses were

analysed, cause of death was categorised into cancer, chronic organ failure and frailty. Results showed that ratings in the 'expertise' dimension for non-cancer patients were more likely to be negative than for cancer patients. Ratings in overall quality of palliative care were significantly lower in the frailty group. Optional free text responses suggested the main areas for improvement are organisation of care and communication to relatives. This enlightening research highlights the need to focus on palliative care in non-cancer patients, and higher consideration of relatives needs.

PREDICTOR IN SURVIVAL IN RESTRICTIVE CHRONIC LUNG ALLOGRAFT DYSFUNCTION

Approximately 30% of patient who develop chronic lung allograft dysfunction after lung transplantation will have restrictive chronic lung allograft dysfunction (rCLAD); the diagnosis carries a particularly poor prognosis. Varleden et al. (*J Heart Lung Transplant 2016;35:1078-1084*) followed 53 lung transplant patient from 2 Swiss centres to search for factors predictive of outcome. The only statistically significant factors were serum and bronchial lavage eosinophil levels and distribution of infiltrates on HRCT. Total blood eosinophil count >240 × 10⁶/litre showed significantly worse survival (HR 3.03, 95% CI 1.57 to 5.84). Upper lobe infiltrates compared to lower lobe or diffuse was associated with better survival (p=0.0021). Overall outcome of study patients was that 30 (57%) died and 12 (23%) underwent lung re-transplantation. Median graft survival after diagnosis was 1.1 years. One-, 3- and 5-year graft survival was 55%, 24% and 6%, respectively. The authors make some interesting observations regarding donor anti-HLA antibody status, macrolide therapy and acute fibrinoid organising pneumonia (AFOP) in this clinically relevant paper.

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