Mycoplasma pneumoniae. Presenting features and diagnosis in our district general hospital in 2010

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Introduction Mycoplasma pneumoniae is a common cause of pneumonia. Incidence ranges from 0.5 to 5.0 per 1000 population or up to 20% of all pneumonias, and generally declines with age, being rare in adults over 50. Classically epidemics occur in 4 to 7-year cycles. Usual features are insidious onset “viral”-type symptoms, including fever, headache, dyspnoea and dry cough, together with a variety of extra pulmonary manifestations. Diagnosis is often missed because of the atypical and unusual presentation.

Methods and Results We examined electronic records of patients during 2010 diagnosed with M pneumoniae by an elevated specific IgM immunoassay method. There were 35 cases. Of those, 20 required acute admission to our hospital (18 adults and two children). In adults, common presenting features were fever, cough, headaches, lethargy and myalgia. Major presenting features, however, were meninigitis/encephalitis in two patients, Stevens-Johnson syndrome in 1, confusion in 1, and haemoptysis in 1. In six adults (55%), the diagnosis was not made during hospital admission, and symptoms were erroneously attributed to presumptive diagnoses of viral meningitis, acute viral illness, dyspnoea of unknown cause, asthma/pericarditis, and an acute drug reaction. We compared length of admission in patients diagnosed early on in admission to those misdiagnosed or diagnosed late; early diagnosis of M pneumoniae using this method was associated with significantly shorter lengths of stay.

Conclusion and Discussion An appreciation of common presenting clinical features of Mycoplasma is important in ensuring the diagnosis is made promptly and not missed. The advantage of an IgM based assay is the detection of early/acute illness rather than convalescent disease (as in the case of parallel assays of acute and convalescent samples), having the potential to change management, refine antibiotics where appropriate and also to potentiate early discharge.
COPD and drugs: new and old concepts

**P252 ONCE-DAILY NVA237 IMPROVES SYMPTOMS, AND REDUCES COPD EXACERBATIONS AND ASSOCIATED HOSPITALISATIONS: THE GLOW1 TRIAL**

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**Introduction**

Symptoms profoundly impact daily life of COPD patients. We assessed the influence of the once-daily (qd) long-acting muscarinic antagonist (LAMA) NVA237 (glycopyrronium bromide) on symptoms and exacerbations in patients with moderate-to-severe COPD.

**Methods**

Patients were randomised (2:1) to 26 weeks double-blind treatment with NVA237 50 μg qd or placebo (PBO). Study drugs were administered via a single-dose dry powder inhaler (Breezhaler® device). Primary efficacy endpoint: trough FEV₁ (mean of 23 h 15 min and 23 h 45 min post-dose values) vs PBO after 12 weeks.

**Results**

822 patients were randomised; mean age was 68.9 years, mean post-bronchodilator FEV₁ was 55% predicted. 80.5% of patients showed statistically superior (p<0.001) improvements in FEV₁ with NVA237 vs PBO at mean trough FEV₁ (108 ml; p<0.001). Trough FEV₁ was also significantly higher at Day 1 and Week 26 (treatment difference: 105 ml and 113 ml, respectively; p<0.001). Serial spirometry in a subpopulation of patients showed statistically superior (p<0.001) and clinically meaningful improvements in FEV₁ with NVA237 vs PBO at all timepoints on Day 1, Week 12 and Week 26. NVA237 had a rapid onset of action with an increased FEV₁ of 93 ml at 5 min and 144 ml at 15 min vs PBO after the first dose on Day 1 (p<0.001). Overall, the incidence of adverse events (AEs) was similar between treatment groups (NVA237: 57.5%; PBO: 65.2%). Serious AEs were reported by 7.5% of NVA237- and 9.0% of PBO-treated patients.

**Conclusion**

NVA237 50 μg once daily was generally safe and well tolerated. Improvements in bronchodilation were rapid, clinically meaningful and maintained for 24 h throughout the study.