RISK FACTORS FOR BRONCHIECTASIS IN CHILDREN WITH CYSTIC FIBROSIS

By age 5 years, 50–70% of children with CF have bronchiectasis. This longitudinal study undertook a CT and BAL on 78 children diagnosed with CF on the newborn screening test aged 3 months, 1 year, 2 years and 3 years when clinically stable (N Engl J Med 2013;368:1963–70). They showed that persistent free neutrophil elastase activity in the BAL at 3 months was associated with an increased risk of later development of bronchiectasis. A large Swedish cohort of patients was followed for up to 10 years and at 3 years of age.

LOW DOSE CT SCANNING FOR SCREENING FOR LUNG CANCER

This national lung screening trial allocated smokers with a 30 pack year history to yearly screening with either low dose CT or chest radiography (N Engl J Med 2013;368:1980–91). All nodules >4 mm in the axial plane were considered to be positive on CT and on CXR all non-calciﬁed nodules or masses were considered to be positive. In the CT group 27.3% versus 9.2% in the CXR group had a positive screening result. In the CT group 6369 had at least one diagnostic procedure (including imaging) versus 2176 in the CXR group. Lung cancer was diagnosed in 1.1% of the CXR group and 0.7% of the CT group. There was a higher incidence of stage IA cancer in the low dose CT group.

PNEUMONIA RISK IN PATIENTS WITH COPD TREATED WITH FIXED COMBINATION INHALERS

This observational trial looked at primary care patients treated with either budesonide/formoterol or fluticasone/salmeterol and the rate of the patients developing pneumonia (BMJ 2013;346:f3306). A large Swedish cohort of patients was matched using propensity scoring. They were followed for 10 years for an episode of pneumonia either in primary or secondary care. There were more episodes of pneumonia per 100 patient years in those treated with fluticasone/salmeterol, a longer hospital stay and an increased mortality. This persisted once the equivalent beclomethasone dipropionate dose was calculated.

HIGH DOSE OSELTAMIVIR AND INFLUENZA SURVIVAL

In this randomised trial, double the recommended dose of oseltamivir (150 mg BD vs 75 mg BD) was given to adults and children diagnosed with swab-positive influenza or evidence of severe influenza (including H1N1), who had had respiratory symptoms for more than 10 days (BMJ 2013;346:f3039). The rates of viral RNA in nasal and throat swabs were analysed to look for viral clearance. The increased dose of oseltamivir was well tolerated though there was no difference in the rates of viral clearance. This has implications in view of the emergence of H7N9 and the potential for further influenza epidemics.

DAMP AND MOULD AND ASTHMA DEVELOPMENT

In this European longitudinal study, 7104 young adults who did not have asthma at baseline were followed for 9 years (Occup Environ Med 2013;70:325–31). Data on accommodation was collected at baseline and 9 years by questionnaire and inspection, looking for evidence of water damage or mould spots. There was an excess of new asthma cases (RR 1.46) in those in water damaged accommodation at baseline and in those in accommodation with visible mould spots at baseline (RR 1.49). The risk was higher in those who had known multiple sensitivities and those sensitised to moulds. This has been postulated as a potential cause of 5–15% of adult asthma.

OBITERATIVE BRONCHIOLITIS IN FIBREGlass WORKERS

Six workers have been described after developing obliterative bronchiolitis (Occup Environ Med 2013;70:357–9). All were involved in preparing fibreglass with styrene resins, mainly in boat building, at five different work sites. The disease came on rapidly without any unusual exposures. Two had lung transplants; one died while waiting. The diagnosis was confirmed histologically in four of the patients. The precise causative agent is not yet known.

ASTHMA IN PREGNANCY AND FETAL ABNORMALITIES

A systematic review looked at cohort studies from 1975 to 2012. There were 21 studies included (BJOG 2013;120:812–22). There was an increased risk of cleft palate, with or without cleft lip and neonatal hospitalisation. There was no effect on major malformations or stillbirth. There was no relationship with exacerbations and use of inhaled bronchodilators or inhaled corticosteroids.

HIV AND COPD

In a cohort of patients with HIV who were matched for smoking and sex, the cohort with HIV was seen to have a higher prevalence of cough, dyspnoea and COPD. Their lung function showed a decreased FeV1 and FVC. The predictors were current smoking and previous bacterial pneumonia (Infection 2103;41:347–53).

MUC5B POLYMORPHISM AND PULMONARY FIBROSIS

This population study looked at the cohort in the Framingham Heart Study, who had all had volumetric thoracic CT and spirometry (N Engl J Med 2013;368:2192–200). They were genotyped for MUC5B. The CT was evaluated for interstitial lung abnormalities and 177 scans had interstitial abnormalities. The MUC5B polymorphism was associated with double the odds of having interstitial changes (OR 2.7). For definite fibrosis the OR was 6.3. A history of smoking did not change the odds.

Competing interests None.
Provenance and peer review Commissioned; internally peer reviewed.
To cite Prior K. Thorax 2013;68:896.
doi:10.1136/thoraxjnl-2013-204182

Correspondence to Kathryn Prior, Respiratory and General Internal Medicine, Chest Clinic, Plymouth Hospitals NHS Trust, Demford Road, Crownhill, Plymouth, Devon, PL6 8DH, UK; kathrynbrain@doctors.org.uk

What’s hot that the other lot got

Kathryn Prior
What's hot that the other lot got

Kathryn Prior

Thorax 2013 68: 896
doi: 10.1136/thoraxjnl-2013-204182

Updated information and services can be found at:
http://thorax.bmj.com/content/68/9/896

These include:

Email alerting service
Receive free email alerts when new articles cite this article. Sign up in the box at the top right corner of the online article.

Topic Collections
Articles on similar topics can be found in the following collections

- Child health (843)
- Asthma (1782)
- Screening (epidemiology) (366)
- Screening (public health) (366)
- Influenza (106)
- TB and other respiratory infections (1273)
- Drugs: infectious diseases (968)
- Pneumonia (infectious disease) (579)
- Pneumonia (respiratory medicine) (562)
- Tobacco use (youth) (191)
- Screening (oncology) (407)
- Epidemiologic studies (1829)
- Bronchiolitis (112)
- Bronchitis (235)
- Health effects of tobacco use (211)
- Lung cancer (oncology) (670)
- Lung cancer (respiratory medicine) (670)
- Lung neoplasms (608)
- Neonatal health (34)
- Cardiothoracic surgery (676)
- Cystic fibrosis (525)
- General practice / family medicine (339)
- Health education (1223)
- Interstitial lung disease (559)
- Smoking (1037)
- Tobacco use (1039)
- Transplantation (184)

To request permissions go to:
http://group.bmj.com/group/rights-licensing/permissions

To order reprints go to:
http://journals.bmj.com/cgi/reprintform

To subscribe to BMJ go to:
http://group.bmj.com/subscribe/