

CONGRESS REPORT

COMBINED CONGRESS OF THE SOUTH AFRICAN THORACIC SOCIETY, THE ALLERGY SOCIETY OF SOUTH AFRICA AND THE SOUTH AFRICAN CYSTIC FIBROSIS ASSOCIATION

2-5 MARCH 2007, CAPE TOWN INTERNATIONAL CONVENTION CENTRE

Another highly successful combined congress was held in March – ALLSA joined forces with the SA Thoracic Society and the SA Cystic Fibrosis Association, bringing together outstanding local and overseas speakers to address a wide range of topics. As the March issue of the journal contained abstracts of ALLSA papers and posters, this report gives a flavour of some of the invited speakers' talks. See 'Allergies in the Workplace' (p. xx, this issue) for an article based on Dr Monika Raulf-Heimsoth's paper on cross-reactivity of food allergens with latex.



Prof Heather Zar with speakers Prof Soren Pedersen and Prof Adnan Custovic.

The plenary session 'Respiratory tract and the environment' started with Prof Rodney Ehrlich's talk on indoor and outdoor pollution. He mentioned that current air pollution is 'insidious and invidious' as it is not visible to the eye. Indoor pollution in developing countries is primarily caused by biomass fuels (dung, wood) and fossil fuels (coal, paraffin) whereas in developed countries smoke from tobacco and pesticide residues are the main culprits. Progressive lowering of standards is prevalent – the WHO 'accepted' daily mean value for SO₂ has been lowered fivefold. On whether air pollution impacts on asthma, there is no doubt that it exacerbates it, as shown in short-term studies of bronchial hyperresponsiveness, and that it results in an increased inflammatory response. However, results from ISAAC indicate that the answer to the question 'Does air pollution induce asthma?' is 'No', as Asian research in Shanghai showed that prevalence of wheeze was not related to air pollution. There is increasing interest in the interaction of air pollution with allergens, investigating whether pollution primes the airways to be sensitive. Other factors to be considered are the effects on exhaust fumes on pollens and climate changes as a result of pollution. That air pollution exacerbates COPD is definite, chronic bronchitis is affected by both indoor and traffic pollution, and diminished lung growth is seen in children in polluted environments. Moving on to specifically the South African perspective, Prof Ehrlich highlighted various factors: SA's climate and how it

affects accumulation and dispersal of air pollution: patchy industrialisation which creates hotspots (Gauteng is one of the NO₂ hotspots in the world because of coal-burning power stations): apartheid urbanisation which has resulted in housing and electrification backlog, and therefore many people being reliant on biomass fuel, and taxis being the main public transport.

Prof Adnan Custovic of the University of Manchester gave a number of amusing and stimulating talks, including the Eugene Weinberg Lecture on 'Genetic and environmental influences on asthma' (see article in March issue, p. 4). Addressing whether allergen avoidance works as a management strategy for established asthma, he said that of course it works, but the real question is 'Can we achieve allergen avoidance by means flexible enough to suit individual needs and be cost-effective?' Studies that test response to allergen-free situations like hospital isolation and spending a year in Switzerland don't address the issues because when the patients come back to their home environment, after 3 weeks they are back to square one. Laboratory studies of vacuum cleaner performance in a controlled environment differ to the situation in the home. Even recommendations regarding pets may not be practical, e.g. to wash the pet, you need to do it every day! Removing a cat from the home does not provide instant relief because you still need to remove the allergen from the home – it may be better to buy a new home! In conclusion Prof Custovic made the following points: single avoidance is ineffective (vacuuming or covers alone are less effective than when used together); comprehensive environmental control is more effective, but it must be tailored to the patient's sensitisation (i.e. find out if there is sensitisation to specific allergens before instituting complicated control measures, and try to assess the extent of likely success of the measures); finally, start early treatment and hope for the best.



Profs Cas Motala and Eugene Weinberg chatting to overseas speaker Prof Jean Bousquet.

Prof Andrea Apter of the University of Pennsylvania, Philadelphia, USA, shared a few insights on asthma adherence and doctor-patient communication. Whereas originally adherence was seen as the extent to which a patient's behaviour complied with instructions and advice from the doctor, currently it is viewed in a wider (more interactive) context – the involvement of patient and health-care provider to produce the desired preventive or therapeutic result. The idea of 'behaviour' has been extended from simply taking medication correctly to include wider aspects of advice, e.g. diet, exercise, etc.

Measuring adherence is difficult because there are many factors to be considered. Noting how many patients never miss follow-up appointments is different to assessing how many of those patients are actually taking their medicine. With asthma medication there is the additional problem of whether enough medication is being taken (if the inhaler is not being used correctly) – Prof Apter issued the caveat: 'Don't increase medication if it isn't being taken correctly'. Patient diaries are not always an accurate reflection of adherence, as some patients may fill them in just before

their return appointment. Similarly self-report questionnaires are not always reliable. Studies attempting to measure the extent of non-adherence create the problem that as patients know they are being monitored, they are likely to be more regular in medicine-taking than when not part of a study. Prof Apter also listed barriers to adherence in asthma patients, both from the disease and therapy aspects. Asthma as a disease impacts on adherence because it is chronic, patients have asymptomatic periods (less likely to be as strict) and because its severity means you can't guarantee control. Barriers related to therapy include cost, incomplete benefit, delayed benefit (e.g. with inhaled corticosteroids, complexity (inhaler technique), long-term medication, adverse effects and an inconvenient schedule. Patient factors include the tendency for adherence to decrease over time, co-morbidities (e.g. depression is a risk factor for poor adherence) and chaotic family life. Health beliefs are a very important factor in determining adherence, as are autonomy (some people want to feel more involved in their treatment) and patients being treated with dignity (leads to higher satisfaction, shown to influence adherence).



Prof Andrea Apter



Prof Adnan Custovic

**HONORARY MEMBERSHIP OF ALLSA
WAS BESTOWED ON OVERSEAS
SPEAKERS**



Dr Monika Raulf-Heimsoth



Dr Charles Obihara



Delegates at the ALLSA stand selecting patient information sheets, assisted by Mrs Jean Aprill and Mrs Ruwayda Adams.

Prof Eugene Weinberg addressed the question of open oral food challenges. Although most food challenges are double-blind placebo-controlled (DBPC), they are very complex; open challenges for children are very feasible. Food allergy is a significant and increasing problem in paediatric practice, and careful histories reveal that it is dangerous and common. Oral symptoms are found even in very young children. Prof Weinberg discussed both immediate and delayed-onset reactions, and outlined the investigations required before considering an open challenge: mother keeping a food allergy diary; taking an allergic history (no use asking 'Is the child allergic?' as many don't like certain foods so have aversion to them rather than a reaction – you have to ask specific questions); examination – look for signs of atopy, malnutrition; skin-prick test using fresh fruit and vegetables will increase diagnostic ability; specific IgE (CAP RAST) gives very valuable information; for delayed-onset reactions patch tests are useful. Positive predictive values as defined by Sporik are immensely helpful in determining allergic reactions to food. To aid your decision when and whom to challenge, the clinical history plays a very important role – if there is a convincing history but negative tests, or an unconvincing history but allergic symptoms. Practicalities before doing an open challenge include: have a firm scientific basis for doing it; anticipate a reaction and be prepared for it, even though it should be unlikely if you have selected your patients carefully; have an agreement with the mother that the child will eat the food if the result is negative – patients may become sensitised if they avoid specific foods for a while. Precautions include: you must have facilities for resuscitation (IV line, adrenaline, a well-equipped unit); you need well-trained staff (doctors, nurses, dieticians); get consent from the parents; the child must be off antihistamines as these may mask an early reaction.



Prof Eugene Weinberg was awarded an Honorary Fellowship in recognition of his contribution to allergology in South Africa.

Don't challenge any child under 3 for milk and eggs or under 5 for nuts and fish. The actual test involves: a very careful examination – there must be no rash or wheeze; a very small dose is placed on the child's lip and small incremental doses are given at 20-minute intervals; regular observations after each incremental dose; blinding is very important as the child has been programmed not to take the food (e.g. nuts can be disguised in mince). What you're hoping to achieve is tolerance to the equivalent of one whole egg, one peanut-butter sandwich or one glass of milk. Prof Weinberg believes that the child should have **no** reaction to the challenge for a negative result – 'minor criteria' are unacceptable. Although careful selection should prevent life-threatening reactions, severe warning signs of a reaction are swelling of the hands or the 'TV sign' when a child who has been watching TV suddenly goes quiet and shows no interest. The benefits of an open oral food challenge are: if negative, it liberates the child's diet and you can downgrade the treatment plan (don't have to carry an EpiPen); if positive, the diagnosis is confirmed and the treatment plan can be confirmed.

The prize for the best ALLSA research presentation was awarded to Dr Unati Mahlali for her presentation 'Dietary and environmental factors associated with asthma in school children in Cape Town, South Africa: results from the International Study of Asthma and Allergies in Childhood Phase Three (ISAAC 3) study' with co-authors Profs Rodney Ehrlich and Heather Zar. Prof Weinberg was presented with an Honorary Fellowship of the Allergy Society of SA for his remarkable contribution to allergy in SA, and all overseas speakers were awarded Honorary Membership of ALLSA.

Anne Hahn