

The Minutes of the meeting of the Derby Medical Society

Held on 28th October 2014 in the Derby Medical School

Apologies: none received

Welcome: Mr S Iftikhar, President

The death of Medical Society member Mr Joe Darné was noted with sadness, and the meeting stood in silence to mark this.

The annual dinner, originally planned for 7th November, will be postponed owing to insufficient numbers.

Minutes for the meeting 7th October: Read by Mr S Milner, Junior Secretary, and approved.

Elective Bursary Report: Dr Lauren Taylor, who had used the elective bursary to help fund her trip to Vanuatu in April / May 2014. Dr Taylor gave a short presentation about the healthcare system in Vanuatu, and in particular the challenges of practicing medicine in a setting with limited resources. She noted that good clinical skills, are particularly important when very few investigations are routinely available. There were a number of questions about the spectrum of conditions seen.

Guest Lecture: Professor Hasan Arshad, University of Southampton
“Can we stem the rise in the allergy epidemic?”

Professor Arshad explained that allergic diseases – in particular asthma, eczema, hayfever, and food allergies - have become increasingly common and now affect 1 in 4 people in the UK. This rise has happened too quickly to be explained by genetic change alone. Allergic diseases are relatively rare in less developed countries – the prevalence in Indonesia is 1 in 50. Allergy is ‘big business’ – asthma treatment in the UK costs £1bn per year. There are a number of factors that seem to be linked to the development of allergy:

- *Exposure to allergens*, eg House Dust Mite. Exposure in the first year of life to house dust mite seems to act as an immune sensitizer. Professor Arshad’s Isle of Wight Allergy Prevention Study showed that strict allergen avoidance in the first 9 months of life led to a much lower incidence of allergic diseases by age 18 years. However, complete allergen avoidance is very difficult to achieve in normal life. Environmental pollutants, which have decreased in recent decades, are probably not linked to allergies.
- *Bacterial exposure*. Children who grow up on a farm are more likely to develop allergic diseases the less their mother is active about the farm. Bacterial exposure may be necessary for normal maturation of the infant’s immune system, and too much cleanliness may not be a good thing! However, there is no evidence that commercial ‘probiotic’ products give any protection against developing allergic diseases.
- *Micronutrients*. Vitamin D may have an immunomodulatory effect. Levels are lower in asthmatic children, and this may partly be determined by latitude. Serum levels of the antioxidant vitamins A, C and E, and trace elements Selenium and Zinc, are lower in asthmatic children. Polyunsaturated fatty acids may also have an immunomodulatory function. Dietary trends towards consuming more processed foods could reduce consumption of these micronutrients.
- *Obesity*. Obesity that develops in early childhood (between 1 and 4 years) and persists as the child grows up is associated with reduced lung capacity, higher blood pressure, and an increased risk of developing asthma. Reducing childhood obesity may help to prevent allergies, but it needs to target the very young to be effective.

It has been known for many years that it is possible to induce immune tolerance by injecting small, incremental doses of an allergen weekly for several months. More recently it has been discovered that sublingual administration is also effective. Prof Arshad described an ongoing study giving sublingual house dust mite extract to infants from 6 months to 18 months of age, who were at high risk of developing asthma. The incidence of any sensitization by 18 months of age was much lower in the treatment group (9% versus 25%). The advantage of sublingual immunotherapy is that it is safe, practical and cheap. It may be the future of allergy prevention if a national programme could be shown to be cost effective.

There were many questions, including the effect of social class on prevalence of allergy, the genetic aspects of allergy, the duration of induced immune tolerance, and the possibility of adverse effects of multiple childhood immunizations.

Vote of thanks: given by Dr John Eisenberg

Register: signed by 29 members, 2 trainees and 1 guest.

Next meeting: 11th November, 2014

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SY Iftikhar, President

Date: