An Occasional Medical Newsletter
Number 61
from The Blood Care Foundation

Dear Member,

In my last newsletter I highlighted the controversies over the use of low-dose aspirin, the treatment of early, localised prostate cancer and the best method of excluding a diagnosis of pulmonary embolism. I have now found another concerning the treatment of chronic low back pain. For many years the "gold standard" has been surgical stabilisation of the spine. Two recent papers have called this treatment to account. Fairbank and colleagues randomised 349 patients, who had suffered from low back pain for at least one year, to either lumbar spine fusion or intensive rehabilitation. After 2 years' follow-up there was no significant difference between the results in the 2 groups except that there was a marginally better score in the disability index in favour of surgery. This has to be weighed against the dangers of surgery. In the second report, Rivero-Arias and his team compared the cost effectiveness of the two treatment options. They estimated the mean cost of surgery to be £7,830 as opposed to £4,526 for rehabilitation. (*Brit.Med.J*. 2005:**330**;1233-8 & 1239-45)

Injection-related Pain.

Preparation for international travel often requires numerous injections. Previously the only effective method of reducing the pain associated with injections was the use of a topical anaesthetic cream which was both expensive and time-consuming as it took 60 minutes to become effective. A recent study using the topical vapocoolant Flouri-Methane (FM), which is inexpensive and immediate in action, showed a significant reduction in immediate pain compared with untreated arms. A survey of the 185 patients indicated that, in future, they would opt for the use of FM. (*J.Travel Med*. 2004;**11(5)**:267-72)

Health Threats in Developing World Cities.

Pre-travel counselling is usually concerned with the prevention of disease by immunisation and behavioural avoidance of illnesses such as malaria and traveller's diarrhoea. Although many travellers will stay in, or pass through, major urban conurbations in the developing world, scant attention is given to the hazards they are likely to encounter. These include, trauma especially traffic accidents, air pollution, heat illness, crimes and security, sex and stress. Sanford has written an excellent review of this topic and will be giving a lecture at the 1st International Conference of the Journal of Travel Medicine and Infectious Disease. (J.Travel Med. 2004;**11(5)**:313-27 & www.travelmedicine.elsevier.com)

Travellers' Diseases.

The number of travellers rose by 10% in 2004 to 760 million. This means that an increasing number of people will be exposed to new infectious diseases and this, in turn, increase the risk of transmitting these diseases to parts of the world where they have never been seen before. Recent examples are the spread of West Nile Virus in the USA and Canada and the increasing incidence of haemorrhagic dengue. It is, therefore, extremely timely that a supplement on Travellers' diseases and Immunisation has been published. (*J.Trav.Med*. 2005:**12 (Suppl 1);**S1-57)

Prostate Cancer and Genetics.

The incidence of prostate cancer is increasing. A common genetic variant has been recently associated with this disease in European and African populations. A follow-up study, centred on the Icelandic population, has localised the variant to the long arm of chromosome 8 (8q24). It appears that this variant is more common amongst men of Afro-American origin than Europeans. (*Nature Genetics*. 2006;**38**:652-8)

vCJD Incidence.

It is possible that the models, currently in use, are markedly underestimating the incidence of variant Creutzfeldt-Jakob (vCJD) disease. A new study on the final stages of the Kuru epidemic in Papua New Guinea shows that some humans can incubate prions for over 50 years without developing symptoms. Kuru is a disease transmitted by eating human brains. The disease was common amongst some tribes in Papua New Guinea until 1960 when cannibalism was outlawed. Since then the number of deaths has slowly fallen to about one per year. Researchers monitoring the end of the epidemic state that these final patients, who were aged between 48 and 70, must have been infected prior to 1960. This means that they had been incubating the disease for at least 34 years and possibly as long as 63 years. Collinge and colleagues argue that it is probable vCJD will have an equally long incubation period. The prion causing vCJD, unlike the one causing Kuru, had to jump the species barrier. The effects of such a barrier include prolonged incubation and greater variation in individual susceptibility, which could be genetically determined. An editorial warns “Any belief that vCJD incidence has peaked and that we are through the worst of this sinister disease must now be treated with extreme caution.” (*Lancet*. 2006;**367**:2068-74 and 2034)

Development of Babies with Hyperbilirubinaemia.

Newman and colleagues have investigated the long term effects of a moderately raised bilirubin level in the newborn. They identified 140 infants with serum bilirubin concentrations >428 mol/l and compared their development with a control group with levels in the normal range. Most of the babies were treated with phototherapy alone although 5 had an exchange transfusion. There was no difference at the age of 5 years between the two groups in the assessment of intelligence, motor skills, neurological problems or behavioural disorders. However, they did find that those whose raised bilirubin levels were due to immune mediated haemolytic disease, did significantly worse than the rest of the group. (*N.Engl.J.Med*. 2006;**354**:1889-900)

Ethnicity and Adverse Drug Reactions.

McDowell et al performed a meta-analysis on 24 studies containing data on adverse reactions to cardiovascular drugs in at least two ethnic groups. Numerous differences between groups were found, among the most severe being a 3 fold increase in the risk of angio-oedema due to ACE inhibitors and a 1.5 fold increase in the risk of intra-cranial haemorrhage resulting from the use of thrombolytic drugs in black patients when compared to white patients.

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