



MIXED BAG

The alarming trends in diabetes

Over the past 20 years, there has been a substantial increase in the numbers of people with diabetes. It is one of the most costly and burdensome chronic diseases of our time. The disease is one of the leading causes of blindness and the most common cause of end-stage renal disease in developed countries. It is also an important cause of cardiovascular complications. Treatment is complex and costly – direct health care costs range from 2.5% to 15% of health budgets.

According to the latest World Health Organization report, the number of people worldwide with diabetes increased from 30 million to 171 million between 1985 and 2000. A startling 4.6% of adults aged over 20 are now estimated to suffer from the disease. Although prevalence rates are generally higher in developed countries than in the developing world, there is a steady increase in prevalence among those in the developing world. The main cause is the rise in type 2 diabetes that is associated with increasing levels of obesity and an ageing population.

This is not expected to get better any time soon. WHO has predicted that the global prevalence of adults with diabetes will reach 6.4% by 2030 – and these estimates are based on the rather unlikely assumption that obesity rates will remain static.

The authors of this recent paper in the *Lancet* used a validated diabetes registry taken from hospital records and physician claims to describe trends in diabetes prevalence, incidence and mortality on Ontario, Canada from 1995 to 2005. They were curious as to whether diabetes prevalence rates were in fact higher than those predicted during the period.

What they found was cause for concern. Age-adjusted and sex-adjusted diabetes prevalence increased by 69%, from 5.2% in a population of 7 908 562 in 1995 to 8.8% of 9 276 945 in 2005. Prevalence increased by 27% from 6.9% in a population of 8 457 720 in 2000 to 8.8% of 9 276 945 in 2005. Although prevalence rates have remained higher in people aged 50 years or older than in those aged 20 - 49 years, rates increased to a greater extent in the younger population. A 31% increase occurred in yearly incidence over 6 years, from 6.6 per 1 000 in 1997 to 8.2 per 1 000 in 2003. The adjusted mortality rate in people with diabetes fell by 25% from 1995 to 2005.

They concluded that the prevalence of diabetes in Ontario, Canada increased substantially during the past 10 years, and by 2005 already exceeded the global rate that was predicted for 2030. This increase in prevalence is attributable to both rising incidence and declining mortality. Effective public-health interventions aimed at diabetes prevention are needed, as well as improved resources to manage the greater number of people living longer with the disease.

Lipscombe LL, Hux JE. *Lancet* 2007; 369:750-756.

Survival in chronic obstructive airways disease

Long-acting beta-agonists and inhaled corticosteroids have been used to treat chronic obstructive airways disease (COPD) for some time. However, their effect on survival of these patients is not known. Peter Calverley and colleagues carried out a randomised, double-blind trial comparing salmeterol at a dose of 50 µg plus fluticasone propionate at a dose of 500 µg twice daily (combination regimen), administered with a single inhaler, with placebo, salmeterol alone, or fluticasone propionate alone for a period of 3 years. They looked at death from any cause, as well as the frequency of exacerbations, health status, and spirometric values.

They found that of 6 112 patients in the efficacy population, 875 died within 3 years after the start of the study treatment. All-cause mortality rates were 12.6% in the combination-therapy group, 15.2% in the placebo group, 13.5% in the salmeterol group, and 16.0% in the fluticasone group. The use of combination therapy compared with the placebo group reduced the risk of death by 17.5%. However, the mortality rate for salmeterol alone or fluticasone propionate alone did not differ significantly from that for placebo. The combination regimen also reduced the annual rate of exacerbations from 1.13 to 0.85 and improved health status and spirometric values. Use of fluticasone propionate did increase the risk of pneumonia.

However, the reduction in death from all causes among patients suffering from COPD using combination therapy was not statistically significant. The conclusion is that further, larger trials are still needed to examine the effect of these medications on mortality, although there definitely seems to be an improvement in quality of life.

Calverley PMA *et al.* *NEJM* 2007; 356:775-789.

Antioxidant supplements for primary and secondary prevention

The highly successful supplement industry is persuading people to take antioxidants in large quantities – promising a longer and healthier life, reduced disease and better ageing. The rationale is that there is evidence that people who eat large quantities of vegetables, fruit and certain types of fats have a reduced risk of many of the diseases of old age. The supplement industry promises the same effects from vitamin and mineral supplements – with antioxidant properties.

Goran Bjelakovic and colleagues searched electronic databases and bibliographies published by October 2005. Their aim was to assess the effect of antioxidant supplementation on primary and secondary prevention of disease. They included 68 randomised trials with a total of 232 606 participants. All randomised trials involving adults comparing beta carotene, vitamin A, vitamin C (ascorbic acid), vitamin E, and selenium



either singly or combined versus placebo or versus no intervention were included in their analysis.

They found that when all low- and high-bias risk trials of antioxidant supplements were pooled together there was no significant effect on mortality. Multivariate meta-regression analyses showed that low-bias risk trials and selenium were significantly associated with mortality. In 47 low-bias trials with 180 938 participants, the antioxidant supplements significantly increased mortality. In low-bias risk trials, after exclusion of selenium trials, beta carotene, vitamin A, and vitamin E, singly or combined, significantly increased mortality. Vitamin C and selenium had no significant effect on mortality.

So, the conclusion was that treatment with beta carotene, vitamin A, and vitamin E may actually increase mortality. Not something that will be widely publicised by the supplement industry.

Bjelakovic G *et al.* *JAMA* 2007; 297: 842-857.

BOOK REVIEWS

Diversity and Division in Medicine. Health Care in South Africa from the 1800s.

By Anne Digby. Pp. 504. SFR 110. Peter Lang AG.2006. ISBN 3-03910-715-1.

This impressive work very aptly reflects that which its title conveys – diversity and division. It is not an example of the more conventional history of medicine by a historically minded (medical) doctor, but effectively a social history of health care by a professional historian.

The author is research professor in history at Oxford Brookes University. She has worked and taught in Britain, Japan and South Africa and has widely researched her subject in many libraries in these countries, where she has been in personal touch with numerous individuals and institutions.

The range of themes treated is notably broad: missionary medicine, 'Western' medicine, African indigenous medicine, medical training, nursing and nurses, patients, witchcraft, colonial framework, political background, and more. The text

is amply supplied with detailed footnotes guiding the serious reader to appropriate sources. Not surprisingly a most striking feature of the work is its extensive 'Sources and bibliography'. This comprises subsections ranging from manuscripts, official papers, journals, articles and chapters, books, unpublished theses and papers, websites, oral testimony to sources of material culture – the whole section occupying no less than 39 pages. A very adequate index completes the volume. The quality of all the illustrations (13) is rather disappointing.

This soft-cover book is one of a series designated Studies in the History of Medicine edited by Charles Webster of All Souls College, Oxford. It constitutes a thorough and comprehensive contribution to South African social history and is a worthy addition to the corpus of its medical history in particular.

E M Sandler

Case Studies in Medical Imaging. Radiology for Students and Trainees.

By AT Ahuja, GE Antonio, KT Wong and HY Yuen. Pp v + 488. R570 incl. (P&P). Cambridge University Press. 2006. ISBN 0-521-68294-0

This book provides a concise overview of a well-selected and broad range of bread-and-butter conditions encountered in everyday radiology practice. Index cases are presented with pertinent clinical information and key images, together with a model report on the imaging. It is possible to tackle these cases in an undemanding test-yourself format, or to merely read through the text. At the end of each system-based section, a mini-review offers pearls on the topic raised by each case, often with the welcome addition of the spectrum of appearances of the same condition, and differential diagnoses.

The book is contemporary with a sensible mix of film and cross-sectional imaging, and prepares the reader for cases likely to be encountered on call. It is rather like using a film library with an experienced consultant at your side. It manages to cover a lot of ground by using this format, and is a welcome addition to the learning material directed at registrars starting out in clinical radiology, as well as interested medical students.

Steve Beningfield



IN MEMORIAM

Marthinus Jacobus van der Walt (25/02/1923 - 13/09/2006)

Dit is met innige leedwese dat ons verneem het van die afsterwe van Marthinus.

Nadat Marthinus sy MB ChB in 1945 aan die Universiteit van Kaapstad behaal het, het hy in verskeie plekke in Transvaal as algemene praktisyn gepraktiseer.

In 1952 ontvang hy die Fullbright Beurs om in Amerika in radiologie te spesialiseer. Hy het die eer gehad om onder leiding van die bekende Professor Pendergrass in Philadelphia as radioloog te kwalifiseer. Hy is waarskynlik die eerste Suid-Afrikaner wat hierdie eer te beurt geval het.

As een van die min destyds gekwalifiseerde radioloë begin hy sy praktyk in Pretoria in Van Riebeeck Mediese Gebou. Hy was een van die min radioloë wat behalwe sy kennis van radio-diagnose, ook 'n uitstekende radiograaf was en besondere kennis van die tegniese aspekte van X-straal apparaat gehad het. Sy ontwerp van die sinograaf destyds is onder andere deur een van die X-straal vervaardigers oorgeneem en vir algemene gebruik vervaardig.

Na sy aftrede uit die grootste praktyk in Pretoria het hy vir 'n hele aantal jare as senior konsultant by die HF Verwoerd-hospitaal gewerk. Met sy aftrede hier ontvang hy 'n pentekening waar hy by 'n X-straal masjien staan met die onderskrif: 'Wag eers 'n bietjie ek wil net gou eers die masjien regmaak'.

Martinus het ook sy merk gemaak as bekwame bestuurder, nie net van sy eie praktyk nie, maar ook as voorsitter van die Sentrale Raad van die Radiologiese Vereniging van Suid-Afrika.

Marthinus was 'n hoogs intelligente mens met hoë inbors, op wie jy kon staatmaak. Sy liefde vir sy taal, sy volk, sy kerk en sy medemens was kenmerkend. Radiologie het een van sy grondleggers verloor, en hy sal deur elke geneesheer en veral die radioloë in die land gemis word. Ons kan van hom sê: 'Staan stil hier het 'n man verby gegaan'.

Ons wil graag hiermee ons innige simpatie en medelye oordra aan sy vrou Kate en sy drie kinders Andries, Elsabe, Delia en hulle families.

AG Visser

Radioloog, Pretoria

Cope Khan Khai (19/02/1953 - 30/11/2006)



On 30 November 2006 the Eye Unit at the Polokwane/Mankweng Hospital Complex mourned the death of a respected friend and colleague, Dr Cope Khai, senior ophthalmologist at the Eye Unit.

He was born on 19 February 1953 in Burma, where his father was a chairman of the Chin State Council. In December 1977 he obtained his medical degree from the Institute of Medicine Mandalay, Burma. After qualifying he worked as a private practitioner in Yangon, Burma, until 1982. From April 1982, he worked in an ENT and eye hospital in Yangon, Burma.

On planning to relocate from Burma, he wrote the SA Medical and Dental Council examination and was appointed as Senior Medical Officer at the Jane Furse Hospital in the Lebowa homeland, where he was responsible for the eye services of the homeland. In 2002 he joined the Polokwane/Mankweng Hospital Complex as registrar in ophthalmology and obtained the Fellowship in Ophthalmology in 2004. At the time of his death he worked as senior ophthalmologist in the eye unit of the hospital complex.

We were grateful for the energy and enthusiasm which Dr Khai gave to his work. We appreciate the support and strength he gave us in our challenging tasks.

His passing brought eloquent tributes to his character and accomplishments, which were many indeed. His endeavours left a deep imprint on eye care in the former homelands of Lebowa and the Limpopo province, serviced by the eye unit. His influence touched and inspired many lives. His ability to inspire individuals to work with him and become members of the team was phenomenal. There was only one premise for both him and his colleagues, i.e. better quality care for patients.

During his 15 years of service in the Limpopo province, he performed more than 12 000 eye operations. It was found fitting by the Ophthalmology Society of South Africa to award a humanitarian award to Dr Khai in 2006.

He leaves behind his wife, a medical doctor, and three sons.

Dr IV de Jager and the medical colleagues of the Eye Unit