

Geriatric symposium report

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ABSTRACT This symposium aimed to provide a practical 'toolkit' for the management of common elderly problems while keeping one eye on future developments. Dizziness, bone disease, age-related macular degeneration and cognitive impairment are a significant cause of symptoms and disability in older people. Treatment and advances in the management of these conditions were discussed. One of the key messages was using both clinical and risk assessment tools to identify those who will benefit from treatment. There is no more difficult a diagnosis than that of 'frailty' but compelling evidence was presented that this is a comprehensible and measurable diagnosis, with an interesting insight into the use of a 'frailty index'.

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Cardiovascular disease in older people is becoming truly a 'geriatric giant'. Leading experts discussed the clinical management of common cardiovascular problems presenting in older people with particular emphasis on the dilemmas faced by clinicians in managing these conditions in frail older people.

KEYWORDS Cardiovascular disease, cognitive impairment, delirium, dizziness, frailty, macular degeneration, osteoarthritis, osteoporosis

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SESSION 1 A PRACTICAL APPROACH TO COMMON AGE-RELATED CLINICAL PROBLEMS

Dr Robert Mills, Reader and Consultant in Otolaryngology, University of Edinburgh, discussed the clinical assessment of the dizzy patient. It was highlighted that balance symptoms were common in all age groups but are particularly prevalent in the elderly, with more than 20% of adults reporting problems with dizziness.¹ Most elderly patients have global vestibular difficulties and only rarely have peripheral lesions other than benign paroxysmal positional vertigo. Magnetic resonance imaging scans are useful for ruling out central lesions. History taking is crucial, but the patient's history needs to be taken carefully as it can be unreliable and inconsistent. Emphasis was placed on vestibular rehabilitation and physiotherapy where cervical osteoarthritis may be implicated.

Professor Roger Francis, Professor of Geriatric Medicine, Freeman Hospital, Newcastle upon Tyne, discussed the rising prevalence of fragility fractures and the need to assess the future fracture risk given the large morbidity, mortality and healthcare costs associated with fragility fractures. Traditionally, risk was calculated on the basis of bone mineral density and age, but determining fracture risk is now thought to be more complex and is influenced by a variety of factors, both skeletal and non-skeletal. The Fracture Risk Assessment Tool (FRAX), developed by the World Health Organization, was introduced.² This can determine the ten-year risk of hip and major osteoporotic fracture in both men and women, thus allowing earlier identification of those at risk and targeting the effective treatments now on offer.

Professor Kevin Davies, Foundation Professor of Medicine, Brighton and Sussex Medical School, presented the extremely common problem of osteoarthritis (OA) in the elderly, with more than 10% of over 65-year-olds having symptomatic knee arthritis.³ This condition causes a large burden of morbidity, not only medical but psychological, as it can lead to chronic pain and social isolation through reduced mobility. We were reminded that there can be an inflammatory component to osteoarthritis and that this is thought to be genetically determined. This makes differentiating OA from other common inflammatory arthritides and conditions, such as polymyalgia rheumatica, more challenging in the elderly population. Interestingly, it has been shown that if a definitive diagnosis cannot be made, patient outcomes are not significantly worse. There was discussion of therapies in the context of the National Institute for Health and Clinical Excellence (NICE) guidelines,⁴ particularly the use of topical treatments, the ongoing debate on safety and the efficacy of nonselective nonsteroidal anti-inflammatory drugs (NSAIDs) and cyclooxygenase 2 inhibitors (COX2), and the lack of support for glucosamine and chondroitin.

SESSION 2 RECENT ADVANCES IN THE MANAGEMENT OF VISUAL IMPAIRMENT AND MANAGING 'FRAILTY'

Professor Usha Chakravarthy, from the Centre of Ophthalmology and Vision Science, Belfast, discussed the recent advances in the treatment of age-related macular degeneration (AMD). The need to find better therapies for this condition is vital as 70% of all blind registrations

in the developed world are due to neovascular AMD. In the past two years, monoclonal antibodies that inhibit vascular endothelial growth factor (VEGF) have been introduced. In trials, these were shown to halt central visual decline in more than 90% of cases, and up to 40% reported visual gains.⁵ This is a well-tolerated therapy with good safety profile; however, the dilemma remains of how to provide it to those who need it. A model of a one-million population was considered, with an annual average number of cases translating into around 350 cases per year, necessitating 7,000 clinic visits. NICE is currently considering the clinical and cost effectiveness of ranibizumab (a VEGF inhibitor), but it seems clear there will have to be a large investment in clinic capacity and retinal expertise to accommodate this expanding need.

Professor Kenneth Rockwood of Dalhousie University, Halifax, Canada, presented the Stanley Davidson Lecture. While most people in hospital in Western countries are elderly not all are 'geriatric' patients, and a key role of the geriatrician is to identify complex cases – the 'frail'. There has previously been the opinion that this is not a practicably measurable state. Professor Rockwood challenged this, stating that frailty was real and measurable. He presented a mathematical model of a frailty index, the variables of which not only reflect health but also key high order functions such as upright ambulation, attention and social interaction. The model clearly demonstrated that the more things that people have wrong with them, the more likely they were to be frail, and that there are finite numbers of problems people can have wrong at the limits of survival.^{6,7} Combined with the comprehensive geriatric assessment to measure the deficits, this index can be clinically applied.⁸ We were encouraged to strive to recognise and measure frailty, to embrace the complexity of caring for the elderly and not allow 'complex' to become a synonym for 'difficult' or 'complicated.'

SESSION 3 HEARTS AND MINDS: THE AGEING BRAIN

Dr Alisdair MacLulich, MRC Clinical Scientist and Honorary Consultant, Queen's Medical Research Institute, Edinburgh, presented an approach to the assessment and management of delirium. This is an often severe neuropsychiatric condition affecting at least 25% of inpatients in geriatric care. It is independently associated with many adverse outcomes, including increased length of stay in hospital and increased mortality. The need to take a good medical and cognitive history, as well as an assessment of mental status both from formal cognitive testing of patients and interviews with carers, was emphasised. Treatment of delirium needs to address all relevant predisposing and precipitating factors. Some studies show benefits from preventative treatment with haloperidol and specialist geriatric input. It was also proposed that all patients be screened for dementia and followed up with cognitive testing to detect developing cognitive impairment.

Professor Peter Passmore, Consultant in Elderly Medicine, Belfast City Hospital, gave an update on the assessment and management of cognitive impairment. We were reminded of the high prevalence of this condition but cautioned that, despite this, an estimated 33–50% of cases go undiagnosed in the UK. Diagnosis relies on a systematic approach and assessment of what type of dementia is present, using interviews as well as cognitive, behavioural and functional assessment, blood testing and neuroimaging. Future developments will likely include biomarkers for dementia. It is recognised that most community-dwelling patients with cognitive impairment will have multiple pathologies and thus are far more likely to develop dementia. Early detection of mild cognitive impairment (MCI) is hugely important, as 50% of patients with MCI will go on to develop dementia and could be targeted for therapy. An overview of anticholinesterase treatments for each of the common dementia syndromes was presented. The presentation concluded with a discussion about withdrawal of treatments. While there is uncertainty over whether changing to another drug is helpful in patients with declining cognition, it is felt that drugs may need to be restarted in 30–40% of discontinued cases to improve other aspects of dementia, such as behaviour and function.

SESSION 4 HEARTS AND MINDS: THE AGEING HEART

Mr Ben Bridgewater, Consultant Cardiothoracic Surgeon, Wythenshawe Hospital, Manchester, discussed the values and risks of cardiac surgery in the elderly patient using two cases to illustrate the problems. The mean age of those undergoing cardiac surgery has been increasing, especially within the past three to four years. There is good survival with mitral valve surgery (repair being better than replacement). Aortic valve surgery is more complex, with good survival while patients are asymptomatic. Half are still alive at three years, and surgical mortality over the age of 75 years remains low at 5%. The common reasons why patients are turned down for cardiac surgery are low ejection fraction, extremes of age and high Euro Scores, which are largely determined by co-morbidities – particularly chronic obstructive pulmonary disease, co-existent ischaemic heart disease and peripheral vascular disease. Even in higher risk patients, there may yet be options with the advent of percutaneous procedures. The take-home message was that elderly patients can and do benefit from cardiac surgery.

The final session of the day addressed some of the clinical dilemmas faced in the daily practice of cardiovascular medicine in the elderly. Dr Hugh McIntyre, Consultant Cardiologist, Conquest Hospital, Hastings, talked about the challenges of treating heart failure in the elderly. Diagnosis can be difficult as up to half of patients with heart failure will have a preserved ejection

fraction. Heart failure is responsible for a two-fold increase in all-cause mortality in the over 80-year-olds, and yet there is little evidence base in this age group. However, the SENIORS study showed that beta blockers are well tolerated in the elderly patient and are effective.⁹ Despite this, they still remain poorly prescribed in comparison to angiotensin-converting-enzyme (ACE) inhibitors for which there is less of an evidence base in the elderly. Reducing blood pressure will prevent heart failure substantially in the future, and current therapy should be thought of as a balance between symptoms, control of blood pressure and renal function.

Dr Gregory Lip, Professor of Cardiovascular Medicine, City Hospital, Birmingham, discussed the difficulties with anticoagulating the elderly patient. One of the major problems appears to be identifying patients at risk of adverse events with warfarin. The increased thrombotic risks that necessitate warfarin are often the same ones which will increase the likelihood of a major bleed. Scoring systems such as CHADS2 for selection patients were advocated, and tools to predict risks of bleeding (HEMMORRHAGES) were presented. While warfarin is

more efficacious than aspirin in reducing stroke and thromboembolism, it has often been held that aspirin is safer in terms of bleeds. This has not been shown to be the case in meta-analysis¹⁰ and, indeed, some trials, such as WASPO, suggest aspirin may be responsible for more haemorrhages than warfarin.¹¹

The session concluded with Dr Nigel Beckett, Consultant Physician, Imperial College London, challenging the proposal that we overtreat hypertension in the elderly. Treatment for elderly hypertensive patients varies widely in different countries, from as low as 18% to 73%. The benefits of treating hypertension are well established, and the findings of the recent HYVET study have shown that these results can be achieved even in octogenarians.¹² There is debate about what the optimal level of systolic blood pressure should be in the elderly, but some studies have suggested there may be increased mortality with too aggressive control.¹³ However, there is no convincing evidence that hypertension and its treatment are directly associated with an increase risk of falls.¹⁴ Further study is needed to determine the optimal level of blood pressure control.

REFERENCES

- 1 Hannaford PC, Simpson JA, Bisset AF et al. The prevalence of ear, nose and throat problems in the community: results from a national cross-sectional postal survey in Scotland. *Fam Pract* 2005; 22(3):227–33.
- 2 Kanis JA, Johnell O, Oden A et al. FRAX and the assessment of fracture probability in men and women from the UK. *Osteoporos Int* 2008; 19: 385–97.
- 3 Cecchi F, Mannoni A, Molino-Lova R et al. Epidemiology of hip and knee pain in a community based sample of Italian persons aged 65 and older. *Osteoarthritis Cartilage* 2008; in press. Epub 17 March.
- 4 National Collaborating Centre for Chronic Conditions. *Osteoarthritis: national clinical guideline for care and management in adults*. London: Royal College of Physicians; 2008.
- 5 Colquitt JL, Jones J, Tan SC et al. Ranibizumab and pegaptanib for the treatment of age-related macular degeneration: a systematic review and economic evaluation. *Health Technol Assess* 2008; 12(16):1–222.
- 6 Rockwood K, Mitnitski A. Fitness, frailty and the mathematics of deficit accumulation. *Rev Clin Gerontol* 2008; 18:1–12.
- 7 Rockwood K, Mitnitski A. Limits to deficit accumulation in elderly people. *Mech Ageing Dev* 2006; 127:494–6.
- 8 Jones D, Song X, Mitnitski A et al. Operationalizing a frailty index from a standardized comprehensive geriatric assessment. *J Am Geriatr Soc* 2004; 52:1929–33.
- 9 Flather MD, Shibata MC, Coats AJS et al. Randomized trial to determine the effect of nebivolol on mortality and cardiovascular hospital admission in elderly patients with heart failure (SENIORS). *Eur Heart J* 2005; 26:215–25.
- 10 Hart RG, Pearce LA, Aguilar MI. Adjusted dose warfarin versus aspirin for preventing stroke in patients with atrial fibrillation. *Ann Intern Med* 2007; 147(8): 590–2.
- 11 Rash A, Downes T, Portner R et al. A randomised controlled trial of warfarin versus aspirin for stroke prevention in octogenarians with atrial fibrillation (WASPO). *Age Ageing* 2007; 36(2):151–6.
- 12 Beckett NS, Peters R, Fletcher AE et al. Treatment of hypertension in patients 80 years of age or older. *N Engl J Med* 2008; 358(18):1887–98.
- 13 Messerli FH, Mancia G, Conti CR et al. Dogma disputed: can aggressively lowering blood pressure in hypertensive patients with coronary artery disease be dangerous? *Ann Intern Med* 2006; 144(12):884–93.
- 14 Hartikainen S, Lönnroos E, Louhivuori K. Medication as a risk factor for falls: critical systematic review. *J Gerontol A Biol Sci Med Sci* 2007; 62(10):1172–81.