REPORT OF THE 1994 AMERICAN GERIATRICS SOCIETY/AMERICAN FEDERATION FOR AGEING RESEARCH SCIENTIFIC MEETING

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I had the opportunity to attend the 1994 American Geriatrics Society(AGS)/American Federation For Ageing Research(AFAR) joint annual scientific meeting, May 19-22, in Los Angeles. It brought together geriatricians from all over the world: U.S.A., Canada, New Zealand, Australia, U.K., Germany, Switzerland, Italy, Israel, Japan, Korea and Hong Kong. The program was heavily scheduled with parallel sessions, providing updated information on the current trends in geriatrics and gerontology.

Dr. Jesse Roth of the John Hopkins University told us that the **secret of ageing** lied in communication problems at the cellular and molecular levels. Cells are continuously talking(via signals such as growth factor like hormones), touching(via cell-cell adhesions) and whispering(through gap junctions) to their neighbours. "Eavesdropping" on these intercellular conversations may elucidate the pathophysiology and therapeutic interventions in diseases and degenerations characteristic of old age, as illustrated in wound healing, diabetes mellitus, coronary artery disease and ageing. The formation of protein-AGE(advanced glycosylation end-products) complexes disturbs intercellular communications, leading to the complications of diabetes mellitus; and the effect overlaps with accelerated ageing. Terminally differentiated cells are highly specialized and non-dividing, but they require continuing "education" by signals to maintain function. In ageing, the absence of these signals results in decreased functioning of the terminally differentiated cells.

Cardiovascular disease, being the leading cause of death in old age in U.S.A., was the focus of an afternoon symposium. Significant advances in the management of hypertension, heart failure, cholesterol disorders and diabetes were discussed.

Hypertension in the elderly people is viewed as a sick vessel syndrome with arterial, renal, hormonal and baroreceptor defects. The risk of hypertension may extend up to age 85 years with systolic being a greater risk than diastolic blood pressure with age. Three recent antihypertensive trials (SHEP, STOP, MRC) have shown that the older patient benefit as much, if not more from blood pressure lowering, than the young; that the value of therapy may extend to age 85 years. Hypertensive cardiovascular risk is equated with the concept of hypertensive vascular overload, which equals the sum of mean arterial pressure increment and pulse pressure increment. When the above trials were re-interpreted with this concept of vascular overload, it was concluded that, in reducing cardiovascular risk, good control of the pulse pressure is more important than normalization of the mean arterial blood pressure. Previous studies have focused only on heart and brain in outcome events of treating hypertension. It was pointed out that the kidney factor should not be ignored in studying hypertension in old age.

While most patients have left ventricular systolic dysfunction as the underlying mechanism for their **heart failure**, the advent of echocardiography had led to the recognition that about 20% of patients with heart failure have preserved left ventricular systolic function(ejection fraction over 40-50%), especially for those aged over 70 years. The pathophysiology of this subgroup with diastolic dysfunction is decreasing left ventricular compliance leading to elevated left ventricular filling pressures. They usually have a history of hypertension or diabetes and often have accompanying left ventricular hypertrophy. The approach to treatment of heart failure in this diastolic dysfunction subgroup differs from those with systolic dysfunction. Treatment of patients with diastolic dysfunction aims at blood pressure control, regression of left ventricular hypertrophy and improving left ventricular diastolic function. Verapamil and diuretics are useful in these patients, while the efficacy of ACE inhibitors and beta-blockers are less well-defined. Drugs not indicated for diastolic dysfunction are vasodilators and digoxin(except in the presence of atrial fibrillation). For those patients with heart failure due to systolic dysfunction, diuretics and ACE inhibitors are important, but the usual caution for the older patient is to "start low and go slow". Digoxin is also effective, but is usually reserved because of the susceptibility to toxicity in the older patient. An important advance is the demonstration that ACE inhibitors can prevent the onset of heart failure when given to patients with asymptomatic left ventricular dysfunction.

The **treatment of dyslipidaemia in the older patient** has been controversial. Evidence for a high cholesterol level as a cardiovascular risk factor in old age comes from studies showing, a)an excess risk for coronary heart disease(CHD) in elderly men with high blood cholesterol

and b)an adverse prognosis in post-myocardial infarction patients with high cholesterol. However, there are no clinical trials specifically on elderly people to study whether lowering blood cholesterol reduces the risk of CHD in old age. Nevertheless there are trials of lipid alteration including people aged 65 years and above. A recent meta-analysis of such lipid-lowering trials shows that benefit can be realised also for the older people. The current National Cholesterol Education Program Adult Treatment Panel recommendations recognize age(over 45 years) and postmenopausal status as a risk factor and emphasize the need to treat elderly patients who have dyslipidaemia.

A symposium was held on **thromboembolic disorders**, one of the common causes of disability and death in the older person. The evidence for lupus anticoagulant/phospholipid antibodies as risk factors for venous and arterial thrombosis in older persons were examined. The association of phospholipid antibodies with strokes is thought to be embolic events(from heart) rather than in-situ thrombosis. Lupus anticoagulant is associated with recurrent thrombosis from 30-50%, and the thrombotic events are reduced by high intensity anticoagulation with warfarin aiming at INR above 3.0. Three advances have helped to improve the safety and efficacy of anticoagulation treatment: a)the use of an internationally standardized INR, b)the establishment of an optimal therapeutic ratio (INR of 2 to 3) by randomised studies, allowing greater efficacy with much less bleeding, and c)the availability of new thrombin inhibitors, in particular low molecular weight heparin, which are useful in preventing deep venous thrombosis and pulmonary embolism. As shown by various studies and meta-analysis, warfarin is the treatment of choice in both primary and secondary preventions of stroke in elderly patients aged over 65 years with atrial fibrillation in the absence of contraindications. However, caution is required for patients aged over 80 years, because there is a higher risk of intracranial haemorrhage with warfarin prophylaxis.

I attended two **Meet-the-Professor sessions**, one on pictorial geriatrics and the other on stroke rehabilitation. I found these sessions stimulating and informative. It is admirable to see how these historical figures, armed with careful observation and clinical acumen, diagnosed and described medical conditions before the advance of technology and imaging techniques. It is lamentable to see that such clinical skills may well gradually fade into history with the ready availability of batteries of investigations and imaging technologies.

A workshop was held on developing **clinical practice guidelines**. The different approaches of developing guidelines were presented and discussed. The common elements of guideline development are choosing a topic, formation of a panel/workshop, development of an analytical framework, literature and peer review, guidelines formulation, dissemination, implementation and assessment of impact. Although the potential benefits of guidelines in respect of impact on quality of care, cost containment, and improved medical liability have been identified; the limitations in geriatric practice are outlined by the thoughtful and critical rounding-off remarks of a sceptical geriatrician: "Some variations are essential for good care, especially in geriatrics when we are treating patients as individual people, in whom function is more important than diagnosis, care is more important than cure, quality of care is more important than quantity of care, and inter-disciplinary approach is more important than technology. A guideline that is too global may overlook personal aspects. On the issue of cost containment, while cost may be reduced by unnecessary activities, cost may actually rise because of increased number of activities which one should be doing but have not been done. On the other hand, the methodology of guideline development may be questionable. Panel members with vested interest can influence the decision. Can expert consensus or professional judgement be equivalent to wisdom? Can one pretend that a large sample is obtained just by pooling all the risk-ratios from small samples in a meta-analysis?"

The **geriatrician's role in primary care, long-term care, and acute care** have been discussed in various sections; all with emphasis on breaking down artificial boundaries, and a trend towards integration and ensuring continuity of care. Innovative models presented included, a)a geriatric continuity clinic for multidisciplinary assessment and follow up of patients seen for outpatient consultation, b)a long term care program using geriatricians and geriatric nurse practitioners with reduction in hospital admission rates, c)discharge planning with active involvement of nurses, geriatricians, hospital social worker and placement coordinator, who is familiar with community facilities and types of clinical care, and d)a chronic care consortium with integration of health care across delivery settings. A geriatrician described how he set up an acute geriatric evaluation and management (GEM) unit within a university hospital by gathering a team of dedicated multidisciplinary staff. Having no additional resources, he could only pay them back with good will, friendship and sometimes free lunches. Subsequently he demonstrated the cost-effectiveness of such an approach by reducing laboratory and pharmacy usage, reducing use of nursing home, and improving functional status without increasing length of stay or early re-admission after discharge. Another geriatrician managed to set up an acute geriatrics unit within a Veterans Administration(V.A.) Hospital by admitting all elderly patients aged 65 years and above. She was able to do this, because the general physicians were not interested in taking the elderly patients. In another acute care unit of the elderly patients in a university hospital, a transitional care intervention (TCI) is used to prevent functional decline in discharged patients. The TCI model includes comprehensive discharge planning; preventive and restorative activities of daily living(ADL) guidelines; recommendations to patients regarding ADL,

diet, exercise, and medications; and a home visit by the TCI nurse within 72 hours after discharge to reinforce or modify specific recommendations. The TCI nurse participates in daily team rounds during the patient's hospitalization and meets the patient and family. Initial experience with the TCI is promising, with increased compliance with overall ADL and medication recommendations. It is thought that the TCI is a promising model of care which might reduce the incidence of post-discharge functional decline.

I visited the **Nursing Home Care Unit**(responsible for long-term care) of the West Los Angeles V.A. Medical Centre. The Medical Centre is a Geriatric Research, Education and Clinical Centre(GRECC). Research programs are linked with the University of California, Los Angeles. The multidisciplinary clinical program is comprised of an acute Geriatric Evaluation and Management(GEM) Unit and the Geriatrics Outpatient Clinic. Geriatrics and Extended Care includes the Nursing Home Care Unit, Hospice, Hospital Based Home Care, Domiciliary, and Intermediate Care Programs. During the tour of the Nursing Home, the director of the Unit demonstrated modifications that have been made on a standardized V. A. type of hospital in order that a more user-friendly environment is created for long term-care of the disabled elderly people. These included colour changes of floors and wall paintings to facilitate orientation, bars and rails to facilitate wheelchair use, small rooms for group activities, adjustment of toilet seats, alarm systems for tracking wanderers,....

Special sessions on **international issues in geriatrics** included perspectives on the practice of geriatrics and approaches to geriatric education. These activities continued into the informal discussions and gathering in the house of Professor Joseph Ouslander, thanks to his hospitality. The ageing population in different parts of the world has created opportunities and problems. In most countries, the grandfathers of geriatrics turn out to be converts of internal medicine or its organ subspecialties. As late comers, geriatricians have to strive for recognition and establishment. Strategies to develop the specialty include infiltration (to practice geriatric medicine occultly within internal medicine), and integration (to ensure enough beds for geriatric practice, and to ensure enough old people are under proper geriatric care!). It is as if it is a missionary movement, a gathering of people with common vision: to improve the health and well-being of all older adults. Problems are many: underfunding, inadequacy of fixed length of stay based on DRG (Diagnosis-related-groups) funding, lack of interest in geriatrics education and practice, cost-orientated health reform, ...While most talk about problems and difficulties, it is admirable that a few countries can boast of their development.

It is moving to hear the speech of **the awardee of the AGS Geriatrics Clinician of the Year**: "I was commonly asked: 'Why do you choose the geriatrics speciality. Isn't it depressing to see these people with chronic illnesses, to see people dying?'...It is not depressing to see people dying peacefully, but it is depressing to see undignified deaths; to see an old person dying not physiologically, but just disappears and doesn't exist. Shouldn't we be caring for the old who have helped to build this country?" This remark is clearly in resonance with the Chinese proverb: "One thinks of the source when one drinks water."

The local people asked me: "Have you enjoyed Los Angeles?" Certainly the packed program and my short stay did not allow me to enjoy the Hollywood studios nor the Californian sunshine. Fortunately, I had a taste of these during my honeymoon seven years ago. Nevertheless I did enjoy the program, as well as meeting and chatting with people from different countries. I was frequently asked: "What would happen to Hong Kong after 1997?" My simple answer was "I don't know." I do hope that such international exchange, sharing and dialogue can continue freely.

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