AGEING: THE PROBLEMS AND THE SOLUTIONS

(Paper presented at the SMA Silver Jubilee National Medical Convention 1985)

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THE BIOLOGY OF AGING

The problem of looking after the aged or allowing the aged to look after themselves is a difficult one. It is so much easier to discuss about the biology of ageing and the symptoms of senescence.

It is a problem of medical practitioners who treat the aged for their symptoms and their illnesses. It is a problem for those who have to live with and support the aged. It is a problem of the few who work among the aged.

Geriatrics perhaps more than any branch of medicine requires a holistic approach. Aged patients seek medical consultation more frequently than any other age group. Utilisation of hospital beds is greatest among 3 groups

children 0 — 4 years

Female patients aged 20 — 39

and Male and female patients aged 50 upwards.

Medical technology is prolonging existence among the aged but in doing so we tend to forget that existence is not matched by an improvement in the quality of life.

From time immemorial man has sought the elixir of life. Claims have been made of the efficacy of injections of foetal tissue or treatment with novocaine or daily dosages of apricot seeds.

But the observation of tissue culture studies is that normal human embryo cells can double their population only up to 50 times. As doubling stops the cells show degenerative changes and die.

On the other hand cancer cells such as the strain of Hela cells derived from a woman patient with cancer of the cervix have been propagated from laboratory to laboratory for the last 26 years. The patient has died but her cancer cells have outlived her.

If we accept that ageing and the infirmities that accompany aging are inevitable the next best strategy next to searching for an exlixir is to seek ways and means to delay the onset of a decline in the body's physiological processes.

I am not referring to hormone replacement therapy or to cosmetic surgery which seeks to hide but does not arrest the decline due to age.

It has been observed that communities in the Caucasus and in isolated villages in Ecuador and Hunza on the frontier of Pakistan have an above average proportion of elderly people some of whom are centenarians. What is unique is that these elderly lead a physically active life.

In the village in the Andes the population aged 60 years and above was 16.4% as against a figure of 6.4% for rural Ecuador in general.

By our present thinking such a demographic situation would be a catastrophe especially as the village has only a total population of 819 people.

The communities are agrarian where there is no fixed retirement age. The elderly make themselves useful doing many necessary tasks around the farm or the home. Increased age is accompanied by increased social status as old people with their accumulated experience of life are expected to be wise. The ruler of Hunza seeks advice from a Council of Elders.

There is no single explanation for the active longevity of these communities. Their calorie intake is low ranging from 1200 to 2,000 calories a day and they also drink their local brew.

Nutrition as we understand or the lack of it is only one variable. The isolation of these communities may have left them less exposed to the strains of modern living. But more likely their longevity may be due to genetic factors.

In contrast to the culture of these agragrian communities our industrial culture patterned after modern economic thinking places a value not on a way of life but on contribution to the industrial economy.

In the process children are reared so that they become part of labour productivity statistics and in due time to be summarily retired when they reach the limiting age of 55 or 60 years.

It leads to a culture in which offspring have neither any room nor any use for older citizens in their urban apartment.

For the retired and the aged there is a sense of uselessness with no further role to play. It leads to depression as the feeling grows that they are no longer part of the society in which they once were actively involved.

The cult of the young that is so prominently advertised in sales of consumer goods does not encourage or sustain cultural attitudes towards the welfare of the elderly.

SOCIAL SECURITY

It was Ottor Von Bismarck chancellor of Germany and not Karl Marx who introduced social security in 1883 with the objective of weakening the appeal towards socialism. Many countries have since adopted Bismarck's concept of assuring security for their citizens by one form of pension or another.

During a visit I made to Hangchow in 1979 the lady secretary of a tea commune proudly related the 5 guarantees that the members of the commune enjoy

1. Shelter
2. Food
3. Clothing
4. Medical care
5. The right to a dignified burial

Social security exists in many forms but they cover mainly pension and medical expenses. In 1982 they formed 10.4% of GDP in Japan, 20% in Sweden, 28% in France and 23% in West Germany.

But as an increasing proportion of the population grows older and lives longer against a background of low population growth rate pensioners are receiving more than what they have contributed during their working lives. As a result pension schemes are predicted to run out of funds and have come under review.

Even in affluent Japan pension schemes for private sector employees call for contributions of 10 – 13% of pay and are shared equally by employers and employees. But pensions are inadequate and retired persons are expected to supplement their income by taking on part time jobs, by savings and help from their families.

According to the Japanese Association for the Development of the Aged 80% of retired persons aged 55 – 60 years find a second job and even after 60 years 60% are still working.

Japan has organisations which look for work for the elderly. Among these employment agencies are

(a) 160 Silver Centres to which members pay a monthly subscription of 600 yen.

(b) 136 Free employment Agencies for the aged whose administrative costs are funded by local government.

(c) 25 Human Resource Banks.

But the transition is not easy even with the help of these non-profit organisations. Those who have retired have to make a wracking psychological adjustment in order to take on a lesser job or part time work that is very much below the status of what they were used to before retirement.

HEALTH AND LONG LIFE

In the U.S. where vital statistics have been recorded for a long time life expectancy has improved 2½ times since 1900. This has been due mainly to a remarkable drop in infant mortality rate.

But at the age of 70 life expectancy has changed very little.

What it means is that in older times while few people managed to reach 70, under present conditions more of the population will survive to that age.

In Singapore where infant mortality rate has plunged from 42.5 per 1,000 in 1956 to 11.7 in 1980 life expectancy at birth has increased from 63 years to 71 years.

The result of longevity is that most people no longer die of some quick acute illness but of the chronic deterioration of old age.

With advancing age there is increasing dependence on institutional care. For the age group 55—59 the rate of admission into hospitals is 140 per 1,000 popula-

tion, for the group 60—64 it increases to 165 and for those 70 and above the rate is 202.

Modern technology has increased the options a physician can do for his ageing patients but this does not mean complete recovery.

Tubes into either the gastrointestinal tract or a vein take the place of eating.

A similar tube into the bladder takes the place of micturition.

An artificial respirator takes the place of breathing.

Electronic pacemakers keep the heart beating for weeks or months even when the upper brain is dead.

Then there is the futility of organ transplants into old patients when transplant will not make them younger.

In the end the physician, the patient himself if he is in a state to understand or the patient's family must judge whether prolonging existence means prolonging agony and quality of life loses meaning.

What good is intensive hospital care when the dying patient is destined to go where no one wants to follow. Dying is a very personal experience and a lonely one.

Medical education has been centred round technology but nowhere in their training has hospital staff been taught how to deal with the dying patient.

So long as hospitals are centres of technology where intensive care is available the drift to institutional care of the aged sick is inevitable. Add to this the factor that relatives are incapable of providing nursing care for the aged then the appeal of hospitals and nursing homes will grow.

This is seen in the change of location where deaths have occurred.

Deaths by Place of Location

	1962 %	1983 %
Hospitals	47.8	53.6
Private Homes	59.1	37.6
Licensed Sick Receiving Houses	0.7	1.7
Nursing Homes & Clinics	—	0.4
Public and Charitable Institutions	—	1.3
Other locations	2.4	5.5

This is not a new phenomenon as even in Germany 60% of deaths occur in hospitals and in New York deaths in hospitals have increased from 65% in 1955 to 72% in 1967.

This is the pattern along which industrial societies organise themselves from birth in hospitals to dying in hospitals.

PERSPECTIVES FOR THE FUTURE

So long as growing old is treated as an economic problem and not part of the culture of the industrial society then there will arise an issue that will divide the young and old.

The aged are a continuum in the isolated agragrian communities in the Andes and in Hunza in the Karakorum mountains. These communities are economically undeveloped but they are little Shangrilas in human relationship.

The 3-tier generation living together is a rare phenomenon and as children grow up to build their own homes even the nuclear family in industrial societies becomes scattered.

When this happens the elderly often live alone. But this is not an insuperable problem in Singapore as Jurong is not too far from Bedok to make visits possible.

The problem arises when the elderly are no longer ambulatory and are confined most of the time to bed. Strokes, arthritis and other diseases of the musculo skeletal system make more demands on nursing care then on medical services.

A home nursing service and not hospitalization can provide the needs of these elderly chronic patients. Besides attending to their medical needs nurses can attend to their hygiene and provide the psychological support that is most wanting.

We have already made a beginning in this direction with the setting up of the Home Nursing Foundation in 1976. Home nursing services should be expanded so that it becomes recognized as a service that is as valuable as institutional care. Even with its affluence Japan cannot build enough institutional facilities to cope with its increasing proportion of the aged population and is planning to move towards the direction of home nursing to supplement hospitalization.

The problem of nursing homes for the aged in Singapore is the shortage of manpower and it was this shortage that led to the cholera epidemic in the Woodlands Home for the Aged last year.

Long life medical management exacerbates the economic problem until pressures grow to put an end to the problem.

There have been 5 attempts to legalise euthanasia in Britain but they have failed.

In the U.S. there has been a movement to allow a terminally ill patient to determine that extraordinary measures should not be used to prolong his or her life. The patient signs what is called "A Living Will". It absolves physicians, relatives, lawyers and clergymen from responsibility if the respirator or the cardiac pacemarker is shut off. And among the lobby for "The Living Will" are physicians one of whom has written:

> "In the course of my practice, I frequently make follow-up visits to my patients in nursing homes. Sometimes I feel as if I am walking through the halls of the living dead. These ancient hulks sit or lie impassively. They cannot walk, talk or communicate in any fashion. They cannot feed themselves, and when they cannot swallow, a tube is passed into their stomach. There is no sign of interest or recognition. I ask. Is it admirable to sustain these people?"

It sounds like Sago Lane but that was how immigrants in crowded Chinatown found a solution for the terminally ill to pass away in peace and for the living to be relieved from the anxieties and mental stress of caring for them. The difference is that Sago Lane never knew of intensive care.

Is it not better to lead to full life and die like the cherry blossom which blooms in its glory for only seven days?