

Improving Longevity and Adding Quality to Life – Caring for the Elderly

Y. S. Raju

Individuals beyond the age 60 years are said to be in the Geriatric age. As life expectancy is increasing, the geriatric population is also on the rise. Life expectancy at the time of our independence was just 27 years. Due to the advances in the field of medicine and improvement in socio economic conditions, there is a steady rise in the expectation of life. In general women have higher life expectancy than men, a phenomenon observed globally.

Geriatrics Medicine is a multi disciplinary approach to elderly patients. In 1900 there were 1 crore 20 lacs elderly, in 1961 there were 2 crore 40 lacs, in 1991 there were 5 crore 60 lacs and in the 2001 census there were 7 crore elderly in India. It goes to show the magnitude of the care which has to be provided for the ageing population not necessarily patients above the age of 60 years.

There is a need for multi-pronged approach to improve the longevity and quality of life in the elderly.

1. Role of the Doctor
2. Role of nurses
3. Role of the elderly themselves
4. Role of society
5. Anti ageing measures
1. **Role of doctors** is vital when the elderly are suffering from diseases and also features

attributed to ageing. These two should be distinguished so as not to miss subtle signs of devastating diseases. For example acute myocardial infarction may be manifested as only off color or extreme weakness, dyspnea , unusual sweating and completely mislead the doctor unless the possibility of MI is borne in mind. Manifestations of the musculoskeletal system may be masked by the bedridden elderly.

There is always the problem of improper history because of confusion, fear, dementia, and lack of attention, usage of different words, deafness and language problems. There may be under-reporting because of indifference, spouse is also elderly, financial problems, neglect and loneliness.

The investigations should be appropriately advised and interpreted keeping in mind the variations that occur in the elderly.

Medical interventions are curative, preventive and promotive. A geriatrician supervises all the medical treatment. As per a survey it was observed that the following conditions occur more frequently in the elderly A) Visual impairment B) loco motor disorders C) joint and muscle problems D) cardiovascular diseases. E) neurological Disorders F) respiratory

diseases. G) skin problems H) GI problems I) psychological problems J) hearing impairment and H) Genito urinary problems are more common in the elderly.

The availability of modern advances in treatment like angioplasty, stents, CABG, early surgical and radiological interventions, dialysis, renal transplantation, ventilators, hearing aids, joint replacement etc., can all be utilized to decreased morbidity and mortality and thereby increase longevity and quality of life. Early intervention is the key. For example if a CABG or PTCA or placement of a Stents is offered before myocardial damage occurs it prevents considerable morbidity and improves the quality of life than when myocardial damage occurs. A geriatrician supervises and coordinates all the medical management.

Preventive measures include immunization with influenza, tetanus toxoid and pneumococcal vaccines. Advice on HRT, oral calcium, bisphosphonates, multivitamins to all needy individuals prevents much of morbidity and improves quality of life.

Periodic screening like Blood pressure check up, blood glucose measurement, lipid profile, cancer screening and advice to see the physician at the earliest in case of any symptom all help to detect a condition early and treat appropriately before organ damage occurs.

Polypharmacy which is practiced in the elderly should be given keeping in mind the drug interaction and side-effects such as orthostatic hypotension and similar complications.

2. **Role of nurses** is also vital as they are the caregivers in the hospitals. A sympathetic approach is always rewarding. The important area to concentrate is the drug dispensing; any negligence could be devastating.

In those with severe arthritis, hemiplegia, parkinsonism and individuals with lower limb amputations etc., rehabilitative measures

improve their quality of life and make them more independent. Use of walking stick, wheel chair and various physiotherapy measures are all rehabilitative measures which improve quality of life of the elderly.

The role of sisters goes beyond only medical care and they now play a role in end of life situations where do not resuscitate instructions are slowly moving towards respecting their last wishes and helping them to accept natural deaths. It is the rare distinction shared by doctors and nurses that they are playing a vital role towards the end of life situations.

3. **Role of elderly** is important as small modifications in their life style can help them lead a longer disease free, useful life adding better quality. Certain do's and don'ts in respect of elderly persons, if properly implemented by them, will go a long way in improving longevity and quality of life. The elderly to be informed about the various aspects which influence his health, quality of life--about the type of food, exercise and personal hygiene.

Stress on avoidance of tobacco in any form, restriction/avoidance of alcohol is important. More emphasis to be given to the importance of "use it or you will loose it".

Advice on adequate intake of calories, proteins, correct intake of fats with suitable proportion of MUFA, PUFA and Sat. fats, advice on inclusion of antioxidants in diet (like dark colored vegetables, fruits, onion, turmeric, ginger etc). Stress on control of weight and reduction of obesity. Also, the advice on inclusion of green leafy vegetables and all seasonal fruits and fiber rich food items is very important.

Exercise in the form of walking daily for 30 minutes is the simplest of the exercises. In those with arthritis upper body exercises can be advocated.

Their role is taking in good nutritious food doing regular exercise within their limits and

avoiding falls by improving and improvising small changes in their houses and work places. Elderly are vulnerable to fall. Osteoporosis contributes to their vulnerability to sustain fractures. Also the elderly because of arthritis, musculoskeletal problems and poor visibility are unable to use normal toilets, stair case etc. Certain modifications at homes and surroundings reduce the risk of falls and thereby fracture risk and also facilitate the elderly to be independent. Use of non slippery flooring particularly in bathrooms, western style toilets, handlebars for stair cases, adequate lighting, reachable light switches, properly laid carpets etc are some of the simple environmental modifications which make life of elderly smoother and happier.

Any slippery floor, in and around the house, to be suitably modified.

- 4. Role of Society** The family system in India to this day respect elderly providing physical, nutritional, medical, social and psychological support to the individuals. Financial support also is vital for the security and medical expenditure to be incurred by the elderly.

The depression is the very major problem faced by the elderly due to helplessness and neglect. It is estimated that around 30% of the elderly are living in below poverty line conditions and many more can not afford basic medical treatment leave alone costly interventions. This results in mortality, morbidity and lack of qualitative life. It is observed that single elderly (widows), elderly living alone when their offspring live away or abroad, elderly spending lonely at home while their children and grand children go out early and return late, are some of the social problems being encountered. Social problems reflect on the physical and psychological health of the elderly thus contributing to psychological problems and decrease in quality of life and a state of helplessness. Strengthening of old family system, day care centers, old age homes, paying guest system, recreational facilities etc,

are the remedies suggested.

Interventions to overcome economic problems in the elderly include various income generating projects aimed at the elderly, financial support by govt and non govt agencies, adopt a granny scheme by Help Age India (a voluntary organization wholly committed to the cause of the elderly), Health Insurance schemes, various concessions offered to the elderly etc.

By strengthening the economic status of the individual morbidity and mortality decrease and quality of life improves. This has to be addressed by the family members, friends and society.

- 5. Anti aging measures** are still in the experimental stages. The desire for a pharmaceutical intervention to halt or delay the effects of aging has produced a thriving antiaging industry ready to address the demand. Some of the products provided by this industry may be useful, but many are not, and others may carry the risk of serious harm. and only proven measure is consumption of small quantities of good balanced nutritious foods.

For most patients who are experiencing or seeking to prevent the effects of aging, lifestyle changes will have more benefit than any ointment, pill, or dietary supplement. Furthermore, the psychosocial effect of these interventions on a person's health cannot be overestimated. Patients who come to a physician's clinic inquiring about available hormonal supplements and asking which ones will effectively restore energy, enthusiasm, muscle mass, ability to sleep, and so on, may best be advised—assuming a serious disease or condition can be ruled out—to consider any of a number of lifestyle modifications. The underlying assumption is that a systemic, or holistic, view of health is likely to be the most effective approach to these types of problems. So, before diving into the world of hormones or

micronutrients, patients might consider making more fundamental life changes.

Eligibility for testosterone therapy, while still controversial, will usually require the presence of primary hypogonadal signs, including anemia, diminished muscle mass, and low bone density, as well as a testosterone level below 300 ng/dL

Estrogen replacement therapy (ERT), both with and without progesterone, for the symptoms of menopause has been associated with increased risk of heart attack, stroke, blood clots, and breast cancer. In very low dosages, the benefits of ERT may outweigh the risks for some patients who seek relief from menopausal symptoms. However, this therapy is not recommended for osteoporosis, since a number of preventive agents are available without the same degree of risk as ERT.

Recombinant human growth hormone (hGH) has been shown in a number of studies to improve several of the physical symptoms associated with aging, such as muscle-mass loss, reduced energy level, and fatigue.

The other experimental measures are Melatonin, Dehydroepiandrosterone. Small studies of dehydroepiandrosterone (DHEA), a sex steroid that converts to estrogen and testosterone, has shown potential benefit in patients with depression and adrenal insufficiency and in increasing bone density and libido in postmenopausal women.

Caloric restriction (CR) has long been known to extend life and maintain health.

Stem cell research could be the future. Still in the early stages at present, stem cell research may be used to develop “replacement parts” such as organs that could work in conjunction with developments in CR medicine. For example, while CR-based medicines may allow people to live longer and healthier, certain organs and vital systems are

likely to wear out over time. These worn-out parts could then be grown via stem cell technology and transplanted into the patient. Another way CR and applications derived from stem cell research could work together would be to up regulate the antiaging pathway in stem cells genetically, and then implant the stem cells to create fitter, healthier organs or cells, which could then be reimplanted or reinserted into the patient.

These are some of multi disciplinary approaches which though seem insignificant can contribute tremendously to the short term and long term measures to improve the longevity and add quality to life and help in caring for our elderly.

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