

## GERIATRIC CHALLENGES - TACKLING WITH INNOVATIVE MEASURES

M.A. Hassan\*, M.M. Khan\*\*, N.I. Akhtar\*\*\*

Assistant Professor\* (Community Medicine), Prof. & Head\*\* (Physiology),

General Practitioner\*\*\*, Lakhisarai, Bihar

Department of Community Medicine, Eras Lucknow Medical College, Lucknow, U.P.

### Abstract :

Ageing is a natural process. India has 77 million elderly people and is expected to have 177 million by 2025. By the year 2050, one fifth of total population will be graying. Ninety percent of the elderly are from unorganized sector with no social security. Over 73 percent of 60 plus are illiterate and dependent on physical labour. Forty percent people live below the povertyline. Recent studies have shown that 89.62 percent of elderly population has multiple morbidities. The leading symptoms or group of symptoms in both males and females pertain to visual impairment / diminished vision (65% & 56.2% respectively). Other problems include heart diseases, respiratory diseases, joints pains, hearing problems etc. Many innovative experimental studies have been done to reverse the biochemical and pathological changes that occur during ageing by using chemicals and drugs. In various studies it has

been established that the use of  $\text{Ca}^{2+}$  (+) antagonists leads to reversal of atherosclerotic process, similarly 2 - mercapto propionyl glycine (MPG) and oxidized MPG improve heart functioning. Centrophenoxine considered as an ageing reversal drug is regarded as neuroenergeticum in human therapy. Ginkgo biloba extract can improve the cerebral function. Topically applied all-trans retinoic acid can repair and probably prevent photo ageing.

Geriatric Challenges- Tackling with Innovative Measures Ageing is a natural process. In the words of Seneca: old age is an incurable disease.<sup>1</sup> Old age should be regarded as a normal, inevitable biological phenomenon. Currently there are over 580 million persons aged 60 years and above in the world, which is estimated to reach a figure of over one billion by the year 2020. Over 700 million will be living in the developing countries.<sup>2</sup> India has 77 million elderly and is expected to have 177 million by



2025. By the year 2050, one fifth of the total population will be graying. That means the number of aged persons will grow to the size of India's population at the time of independence.<sup>3</sup> Ninety percent of the elderly are from the unorganized sector with no social security. Over 73 percent of the 60 - plus are illiterate and dependent on physical labour. Forty percent persons live below the poverty line. A sizable number of the elderly people suffer from physical, mental and social problems. Recent studies have shown that 89.62 percent of elderly populations have multiple morbidities. The leading symptoms or group of symptoms in both males and females pertain to visual impairment/diminished vision (65% & 56.2% respectively). Other problems include heart disease, respiratory disease, locomotors disabilities, hearing problem, skin disease, neurological disease etc<sup>4</sup>. Prevalence of mental morbidity among the population aged 60 years and above was estimated to be 89 per 1000 population. Affective disorders in later age, particularly depression and dementia, form the mental morbidity<sup>5</sup>. Irrespective of all these, there is a major challenge to develop innovative ways of tackling special health and social problems and to improve quality of life so called Healthy ageing. Many innovative experimental studies have been done to reverse the biochemical and

pathological changes that occur during ageing by using chemicals and drugs. The basic changes occur in ageing are atherosclerotic changes, mitochondrial dysfunction leading to deteriorated heart function, decreased activity of acetyl cholinesterase enzyme & decreased cerebral 5-HT<sub>1A</sub> receptors (5-hydroxy-tryptamine 1A). This has been experimentally proved that these changes can be reversed. It has been established that the use of Ca<sup>2+</sup> (+) antagonists leads to reversal of atherosclerotic process.<sup>6</sup> 2-mercapto propionyl glycine (MPG) and oxidize MPG partly reverse mitochondrial uncoupling and improve deteriorated heart function.<sup>7</sup> Centrophenoxine, causes reversal of the age related decline of cholinergic system<sup>8</sup>. Ginkgo biloba extract reverses the decreased cerebral 5-hydroxytryptamine 1A (5-HT 1A) receptors during ageing<sup>9</sup>.

Living longer offers unpredicted opportunities for personally and social fulfilling lives, but it also presents individual and social challenges related to quality of life in old age including independence, social interaction, health care and community involvement to respond to these challenges we must develop sound and affordable policies that perceive ageing as a natural process, which continues throughout the life span. so the great challenge

for geriatric population is to rehabilitate. The important thrust is to create old age homes, day care centres, mobile medical units. Travel related and Income Tax concession must be available to the elderly citizens. Elderly people are a reservoir of experience. Let us give them love, care, respect and attention.

Dr. Horlem Brundtland (former President, W.H.O.) correctly said that twentieth century was a century of 'Survival'. but the greatest challenge of the 21<sup>st</sup> Century will be to improve quality of life. Health is the most important prerequisite for people to enjoy life especially in their older years.

**Percentage of elderly reporting various ailments**

| Ailment                              | Reported% |
|--------------------------------------|-----------|
| Visual impairment/complaint          | 88.0      |
| Locomotive disorder, joints, muscles | 40.0      |
| Neurological complaints              | 18.7      |
| Cardiovascular disease               | 17.4      |
| Respiratory disorder                 | 16.1      |
| Skin conditions                      | 13.3      |
| Gastro intestinal/abdominal disorder | 9.0       |
| Psychiatric problem                  | 8.5       |
| Hearing loss                         | 8.2       |
| Genitourinary disorder               | 3.5       |

Source : VAHI (1997)<sup>10</sup>

**Distribution of elderly as per diagnostic Group**

| Systems               | Reported% |
|-----------------------|-----------|
| Eye                   | 70        |
| HTN                   | 48        |
| Psychosocial problems | 42        |
| Resp                  | 36        |
| Musculo skeletal      | 14.6      |
| Nervous system        | 8.67      |
| Ear                   | 8.0       |
| GIT                   | 4.7       |
| Endocrine             | 3.33      |
| Genitourinary         | 2         |
| Skin                  | 0.66      |
| Hernia                | 0.66      |

Source : Prakash R.et. al;(2004)<sup>11</sup>

**References :**

1. Preventive medicine and Geriatric; In Park's Text Book of Preventive & Social Medicine, 17<sup>th</sup> edition pp 408 edited by Park K, published by Bannarsidas Bhanot, Jabalpur, 2002.
2. WHO Press Release Oct. 1998.
3. News letter, National Institute of Health and Family Welfare, Vol III, No. 3, 2001.
4. Venkoba rao, A; Psychiatric morbidity in the aged, Indian Journal of Medical Research, 1997; 106:361-369.



5. Lal S, mohan B, Punia MS. Health and Social status of senior citizens in rural areas, Indian Journal of Community Health (IJCH), 1997;9(3):12.
6. Schmitz G, Hankowitz J, Brennhausen B, Schmutte C. The effect of  $Ca^{++}$  antagonists on cellular lipid metabolism. *Arzneimittelforschung* (Germany west) 1990; 40 (3A): 366-72.
7. Fuchs J, Mainka L, Zimmer G. 2-mercaptopropionyl glycine and related compounds in the treatment of mitochondrial dysfunction and postischemic myocardial damage *Arzneimittelforschung* (Germany, west) 1985;35(91:1394-1402.
8. Sharma D, Singh R. Centrophenoxine activates acetyl cholinestrase age activity in hippocampus of aged rats. *Neurobiology laboratory, school of life sciences. Jawahar Lal Nehru University, New Delhi, India, Indian J. Exp. Biol (India), 1993: 33 (5): 365-8.*
9. Huguet F, Drieu K, Piriou A. Decreased cerebral 5- HTIA receptor during ageing reversal by Ginkgo biloba extract, *J Pharm. Phmacol (England) 1994; 46(4):316-8*
10. VAHI- Report of the Independent commission on Health in India, chapter 14, Health Problem of Specialized Groups;1997.
11. Prakash R; Choudhary S.K., Singh U.S; Deptt of comm. Med., R.N.T. Medical College, Udaipur. *I.J.C.H 2004:XXIX No.1.*

\*\*\*

The tariff for the advertisement are as follows :-

|                        | <u>Half yearly</u> |
|------------------------|--------------------|
| 1. Back Cover Page     | Rs. 3,000/-        |
| 2. Title Cover (Inner) | Rs. 3,000/-        |
| 3. Back Cover (Inner)  | Rs. 3,000/-        |
| 4. Ordinary Full Page  | Rs. 1,500/-        |
| 5. Ordinary Half Page  | Rs. 750/-          |

**Note :** Amount payee Draft should be sent in favour of  
"Indian Journal of Community Health", payable at Kanpur.