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Editorial

Dr. Anand P. Ambali
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I/C Geriatric Clinic, BLDE University,
Shri B M Patil Medical College
Hospital, & RC, Vijaypur



Guest Editor

Understanding Geriatric Medicine

It is indeed a privileged moment to me for two reasons. First, I am given an opportunity to organise Mid Term Conference of Geriatric Society of India and the second reason is that I am Guest Editor for this conference issue of IJGC.

I have been consultant geriatrician and associated with Geriatric society of India for the last ten years. It has been a journey of learning, learning and learning geriatric medicine. When the geriatric clinic was selected to host Mid term conference, I decided that the conference will dedicate with theme “Understanding Geriatric Medicine”. Though I am aware the whole geriatric Medicine cannot be understood in two days’ deliberations, we the organising team decided to have talks and workshops which will be of benefit to consultants, private practitioners, medical officers and post graduate students. We also decided to involve faculty, research scholars, postgraduate students from medical, nursing, physiotherapy, sociology, homeopathy and ayurveda systems.

The challenges faced by clinicians practicing in rural area is also brought to lime light through this conference apart from the fact that this conference provides platform for all the young generation doctors to present their research studies in field of geriatrics.

Practicing geriatric medicine is challenging. The various issues like poly pharmacy, multi morbidity, and good communication form the important part of practice. The care also involves holistic approach. The clinician need to understand the social (Widowhood, Abuse), psychological (Depression, Anxiety), spiritual and financial aspects apart from health issues. The presentation of diseases being atypical in most of the conditions, geriatric giants like falls, delirium, pressure sores and incontinence needs to be assessed and addressed. The role of preventive geriatrics like immunization, osteoporosis prevention need to be considered for successful ageing. The most important aspect is to take care of caregivers too. The care givers who can be formal and informal, sacrifice a lot in care of elders. They leave the joy of the job and pleasures of adulthood and dedicate themselves in care of older people who are either bed ridden or suffering from dementia.

Although the issues like palliative care, hospice care, respite care and rehabilitation are in nascent stage in our country, it has to be incorporated in day to day practice of elder care. The emphasis is to give a good quality of life amongst multiple co morbid conditions a elder has, than the cure of the diseases.

I am of opinion that most of the time simple measures like good communication skills, giving adequate time during consultation, involving care givers in decision making, taking the elder in confidence, few drugs (not a pill for every ill!), use of simple remedies for most of the diseases and physiotherapy will surely give a sense of well being and improve quality of life of elders.

I take this opportunity to welcome you all to MTC GSICON 2016 and also thank you for your active participation. A sincere attempt is made to make understand geriatric medicine to some extent through this conference. Any suggestions or critics are always welcome and drop a line to my mail anandambali@yahoo.com.

Regards

Assessment of Functional Capacity Using Instrumental Activity of Daily Living Scale - A Cross Sectional Study Among Elderly Residing in an Urban Area of North Karnataka

SACHIN DESAI*, CHANDRA S. METGUD**, MALLAPUR MAHESHWAR D***

Abstract

Background: Life expectancy at birth has continued to increase globally over the years. With the increase in life expectancy the proportion of elderly in the country is increasing. As the age advances, an individuals' functional capacity declines. The Instrumental activity of daily living (IADL) scale¹ is one of the useful tools of assessment of elderly functional capacity. It includes eight domains of functioning which will be affected among the Elderly.

Objective: To assess the functional capacity using IADL scale among elderly above the age of sixty years, residing in an urban area.

Study design: Cross sectional study.

Study setting: Ashok Nagar UHC field practice area, Department of Community Medicine, Jawaharlal Nehru Medical College, KLE University, Belgaum.

Study period: 1st January to 31st December, 2012

Sample size: 783 elderly.

Methodology: Elderly (literate and illiterate) were screened for cognitive impairment with Mini Mental State Examination (MMSE)² and Hindi Mental state examination³ respectively by a predesigned pretested questionnaire after obtaining verbal and written informed consent. Elderly having a score of < 25 (MMSE/HMSE) were categorized as cognitively impaired. Those who scored 21-25 (MMSE/HMSE) had mild Cognitive Impairment, 11-20 (MMSE/HMSE) score were moderately cognitively Impaired and <10 (MMSE/HMSE) score were severely cognitively Impaired. The functional capacity among the study participants was assessed using IADL scale which had eight domains of assessment namely: Ability to use telephone, go shopping, food preparation, to perform housekeeping, perform laundry, use mode of transportation, regarding the responsibility for own medications, and their ability to handle finances. Food preparation, housekeeping and laundry were assessed among elderly women exclusively.

Results: The elderly above sixty years of age experienced mild age related decline in the functional ability with respect to ability to use the telephone ($p < 0.001$), shopping ($p < 0.001$),

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to use a particular mode of transport ($p < 0.001$), regarding their own responsibility of taking medications ($p < 0.001$), managing day to day finances but not detailed banking ($p < 0.001$). There was a significant functional impairment among cognitively impaired for the above mentioned five functional activities. However, both the cognitively impaired and the healthy elderly women, were unable to perform laundry ($p < 0.001$), did not participate in housekeeping ($p < 0.001$) and needed to have meals prepared and served ($p < 0.001$).

Keywords: Functional Capacity, IADL, Elderly, Urban Area.

BACKGROUND

The ageing population should be seen as one of the great success stories of the 20th century as they have overcome their morbidities of their youth, adulthood and elderly through their good immune system and the advent of modern antibiotics and vaccines. Life expectancy at birth has continued to increase globally over the years. With the increase in life expectancy the proportion of elderly in the country is increasing. This trend is to continue in the time to come.

A person is said to be optimally functioning if he is able to perform cognitive, occupational and social tasks. Functional status in an elderly can be assessed by IADL. Normal ageing changes reflects in an individual's decline in functional abilities and makes them less independent, less safe and makes their daily tasks much difficult to perform. Cognitive Impairment (CI) is emerging as an important health

problem and is no longer considered a normal and inevitable change of ageing, but when problems with thought process occur. Cognitive impairment leads to decline in IADL due to damage to the brain beyond what might be expected from normal ageing. By the IADL, we can assess an individual's independent living skills: intermediate self-care which includes activities like housekeeping, meal preparation, shopping and complex functions like handling finances, telephone use and medication use which decline due to cognitive impairment. The IADL scale has 8 domains of functioning: Ability to Use Telephone, Shopping, Food Preparation, Housekeeping, Laundry, Mode of Transportation, Responsibility for Own Medications, Ability to Handle Finances, Food preparation, housekeeping and laundry were scored based on ability to be dependent scores zero and independent performance of the IADL variable scores one and above.

Domains	COGNITIVELY IMPAIRED (MMSE/HMSE < 25) (n=55)		NON COGNITIVELY IMPAIRED (MMSE/HMSE > 25) (n=728)		Statistical Significance
	Score 1 & more (Independent)	Score 0 (Dependent)	Score 1 & more (Independent)	Score 0 (Dependent)	
Ability to Use Telephone	20 (36.36%)	35 (63.64%)	596 (81.87%)	132 (18.13%)	$\chi^2 = 66.477$, $df = 3$ $p < 0.001$
Shopping	27 (49.09%)	28 (50.91%)	278 (38.19%)	450 (61.81%)	$\chi^2 = 101.484$, $df = 3$ $p < 0.001$
Mode of Transportation	21 (38.18%)	34 (61.81%)	560 (76.92%)	168 (23.08%)	$\chi^2 = 94.118$, $df = 4$ $p < 0.001$
Responsibility for Own Medications	24 (43.63%)	31 (56.37%)	535 (73.49%)	193 (26.51%)	$\chi^2 = 70.734$, $df = 2$ $p < 0.001$
Ability to Handle Finances	40 (72.73%)	15 (27.27%)	707 (97.11%)	21 (2.89%)	$\chi^2 = 76.241$, $df = 2$ $p < 0.001$
Food Preparation (n=454)	2 (4.55%)	42 (95.45%)	60 (14.63%)	350 (85.37%)	$p < 0.001$
Housekeeping (n=454)	15 (34.10%)	29 (65.90%)	58 (12.77%)	352 (77.33%)	$p < 0.001$
Laundry (n=454)	9 (20.46%)	35 (79.54%)	92 (22.44%)	318 (77.56%)	$p < 0.001$

*N=454 DOMAINS ASSESSED FOR WOMEN ONLY

Table 2: Gender wise IADL domain assessment among the cognitively impaired (CI) elderly (N=55).

DOMAINS	MEN (n=11)		WOMEN(n=44)	
	CI	No CI	CI	No CI
Ability to Use Telephone	3 (27.27%)	8 (72.73%)	17 (38.63%)	27 (61.37%)
Shopping	0	11 (100%)	9 (20.45%)	35 (79.55%)
Food Preparation	0	11 (100%)	3 (6.81%)	41 (93.19%)
Housekeeping	0	11 (100%)	17 (38.63%)	27 (61.37%)
Laundry	0	11 (100%)	9 (20.45%)	35 (79.55%)
Mode of Transportation	4 (36.36%)	7 (63.64%)	17 (38.63%)	27 (61.37%)
Responsibility for Own Medications	6 (54.54%)	5 (45.46%)	18 (40.90%)	26 (59.10%)
Ability to Handle Finances	8 (72.72%)	3 (27.28%)	32 (72.72%)	12 (27.28%)

OBJECTIVE OF THE STUDY

To assess the functional capacity using IADL among elderly residing in an urban area.

METHODOLOGY

A Cross sectional study was carried in Ashok Nagar field practice area from 1st January to 31st December 2012. The total elderly population of Ashok Nagar UHC according to CNA (community needs assessment survey) was 1950 (7.2%⁴ of the total population 27081) out of which 783 elderly were chosen using simple random technique. Socio-demographic variables and relevant data were collected using a pre-designed, pretested questionnaire. The study area was Urban Health Centre (UHC), Ashok Nagar which is the field practice area of Department of Community Medicine, J. N. Medical College, KLE University, Belgaum. The seven areas coming under Ashok Nagar UHC are Shiva-Basav Nagar, Markhandeya Nagar, Ashok Nagar, Azam Nagar, Ayodhya Nagar, Karnataka State Reserve Police Quarters and Jawaharlal Nehru Medical College Quarters. A sampling frame was prepared and using a random number table 783 elderly will be selected from 1950. Elderly aged 60 years⁵ and above and permanent residents of the study area (residing for one year or more) were included in the study. Persons aged 60 years⁵ and above who are deaf, dumb and visually impaired were excluded from the study. Elderly residing in urban field practice area of Ashok Nagar were interviewed; Socio-demographic profile of the study participant was collected using a pre-designed pretested questionnaire by personal interview at the study participants' residence. To assess the cognitive impairment Mini Mental State Examination (MMSE) was carried out. For those who were illiterate a vernacular adaptation of MMSE i.e. Hindi Mini Mental State Examination (HMSE) was used to assess cognitive impairment. In all of the elderly subjects IADL ³Scale was applied and their functional capacity was assessed using IADL.

ETHICAL CLEARANCE

The present study was approved by J. N. Medical College Institutional Ethics Committee on Human subjects' Research. (Ref: MDC/PG/742 dated 21/10/2011)

Analysis: Numerical socio-demographic variables were analyzed by Fishers exact P, Chi square test was also used to study the factors associated with cognitive impairment and IADL among elderly.

RESULTS

Out of the 783 elderly, CI elderly were 55 and the 728 elderly were having normal MMSE/HMSE scores. In both the CI and non CI elderly, IADL scale was applied. The eight domains of the IADL Scale were affected among the 728 elderly who had >25 (MMSE/HMSE) score: Majority of the elderly 596 (81.87%) independently used the telephone (p<0.001), with respect to their ability to do shopping: a proportion 278 (38.19%) of the elderly shopped independently for small purchases (p<0.001), Regarding the use of different modes of transport: majority, 560 (76.92%) of the elderly travelled independently or accompanied by another person (p<0.001), regarding the responsibility of taking their own medications: a large portion, 535 (73.49%) of elderly took their medications at the right time in right dosages (p<0.001), As regards to the ability to handle finances: 707 (97.11%) managed day to day purchases but not banking (p<0.001).

Specifically among the elderly women, food preparation, laundry and housekeeping were measured. It was found that a large portion 350 (85.36%) of elderly needed to have meals prepared and served (p<0.001), As regards to housekeeping 352 (77.33%) of elderly did not participate in home maintenance tasks (p<0.001), Regarding the laundry, all the laundry must be done by others (p=0.001) in 318 (77.56%) elderly. As regards to the rest of CI impaired elderly, 35 (75.54%) of the CI were unable to use the telephone, rest of them

answered the telephone but could not dial. About shopping, 28 (50.91 %) of the total CI elderly, were unable to shop. Regarding the use of a mode of transport for travel, 34(61.81%) did not travel at all and rest travelled on public transport when accompanied by another or travelled in a taxi. Regarding adherence to medications, 24 (43.64%) elderly took medications at right time in right dosages despite being CI. With respect to handling finances, majority of CI elderly managed day to day purchases but not banking. Regarding preparing food, majority 42(95.45%) needed to have meals prepared and given, and a larger portion of them, 29 (65.90%) of them did not participate in home maintenance tasks.

DISCUSSION

In our study the functional activities were tested by IADL, among the cognitively impaired elderly all the functional activities were affected more than normal cognition individuals. This difference was statistically significant. The activities affected were ability to use telephone ($\div 2=66.477, df = 3, p<0.001$), ability to do shopping ($\div 2=101.484, df = 3, p<0.001$), ability to prepare meals ($\div 2=23.473, df = 3, p<0.001$), ability of housekeeping ($\div 2=17.596, df = 4, p=0.001$), ability to do laundry ($\div 2=19.848, df = 2, p<0.001$), ability to travel independently ($\div 2=94.118, df = 4, p<0.001$), responsibility of dispensing their own medications ($\div 2=70.734, df = 2, p<0.001$) and ability to handle finances ($\div 2=76.241, df = 2, p<0.001$).

In a study done in Korea⁶, the results of logistic regression analysis adjusted for age, sex, and education showed that there were significant differences between the two groups on the total S-IADL score (OR=2.07; 95% CI=1.59-2.71; $p<0.001$) and IADLs, such as the ability to use the telephone (OR=10.55; 95% CI=2.66-41.81; $p=0.001$), prepare meals (OR=3.33; 95% CI=1.65-6.70; $p=0.001$), take medication (OR=4.40; 95% CI=1.26-15.35 $p=0.020$). MCI patients showed significantly more impairment in the areas of using the telephone, preparing meals, taking medication, managing belongings, keeping appointment, talking about recent events and leisure/hobbies than normal elderly controls.

CONCLUSION

Thus functional impairment is seen in relation to the instrumental activities among the elderly and more impaired among those who show cognitive decline.

Recommendations: Preventive measures like:

- 1) Optimum care of the health of the elderly to ensure a graceful, healthy ageing through diet especially supplementation with antioxidants.
- 2) Caregivers support, early screening for cognitive impairment at the primary level of health care.
- 3) Keeping the elderly occupied mentally and physically with a routine similar to their past with a good family and social support system.

Limitations: A limitation of the instrument includes the self-report or surrogate report method of administration rather than a demonstration of the functional task. This may lead either to over-estimation or under-estimation of the functional ability.

Conflict of interest: None

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An Observational Study to Assess the Prevalence of Malnutrition Among the Geriatric Population Attending the Out-patient Clinic at Geriatric Department in Bangalore Baptist hospital

DOMINIC BENJAMIN*

Abstracts:

An Observational Study to Assess the Prevalence of Malnutrition Among the Geriatric Population attending the Out-patient Clinic at Geriatric Department in Bangalore Baptist hospital. A total of 307 elderly patients were assessed with mini nutritional assessment questionnaire. The oral prevalence of malnutrition was 7.3%. Malnutrition among geriatric patients was because of dietary factors.

Keywords: Malnutrition, older persons, mini nutritional assessment (MNA).

BACKGROUND

This study is undertaken as there is insufficient data on the prevalence of malnutrition in urban populations in Bangalore city. Similarly, a study in Netherlands on "Prevalence and determinants for malnutrition in geriatric outpatients" by Marian *et al* in Clinical Nutrition, Dec 2013,¹ emphasizes that very few data is available on the nutritional status of geriatric outpatients.

The aim of this study is to describe the nutritional status and its clinical correlates of the geriatric individuals visiting a geriatric outpatient department.

INTRODUCTION

Ageing and nutrition: a growing global challenge:

According to WHO, Both the number and the proportion of older persons - defined as aged 60 and over - are growing in virtually all countries, and worldwide trends are likely to continue unabated. In 2002 there were an estimated 605 million older persons in the world, nearly 400 million of whom were living in low-income countries. Greece and Italy had the

highest proportion of older persons (both 24% in 2000). By 2025, the number of older persons worldwide is expected to reach more than 1.2 billion, with about 840 million of these in low-income countries.

The life span of humans has markedly increased with improvement in science and technology. This has not kept par with good nutrition in urban populations.

Poor nutritional status and malnutrition in the elderly population are important areas of concern. Malnutrition and unintentional weight loss contribute to progressive decline in health, reduced physical and cognitive functional status, increased utilization of health care services, premature institutionalization, and increased mortality. Nonetheless, many health care practitioners inadequately address the multifactorial issues that contribute to nutritional risk and malnutrition. A common assumption is that nutritional deficiencies are an inevitable consequence of ageing and disease and that intervention for these deficiencies are only minimally effective as stated in The Permanente Journal, 2005 Summer.²

Demling RH, DeSanti L have Malnutrition is often due to one or more factors like inadequate food intake; food choices that lead to dietary deficiencies; and illness that causes

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increased nutrient requirements, increased nutrient loss, poor nutrient absorption, or a combination of these factors as stated by Demling RH.³

Nutritional inadequacy in the elderly can be the result of one or more factors—physiologic, pathologic, sociologic, and psychological. The difficulty for the clinician is in identifying the underlying factors contributing to the problem and how to intervene effectively.

MALNUTRITION AND OLDER PERSONS, ACCORDING TO WORLD HEALTH ORGANISATION

Many of the diseases suffered by older persons are the result of dietary factors, some of which have been operating since infancy. These factors are then compounded by changes that naturally occur with the ageing process.

Dietary fat seems to be associated with cancer of the colon, pancreas and prostate. Atherogenic risk factors such as increased blood pressure, blood lipids and glucose intolerance, all of which are significantly affected by dietary factors, play a significant role in the development of coronary heart disease.

Degenerative diseases such as cardiovascular and cerebro-vascular disease, diabetes, osteoporosis and cancer, which are among the most common diseases affecting older persons, are all diet-affected. Increasingly in the diet/disease debate, the role that micronutrients play in promoting health and preventing non-communicable disease is receiving considerable attention. Micronutrient deficiencies are often common in elderly people due to a number of factors such as their reduced food intake and a lack of variety in the foods they eat.

Another factor is the price of foods rich in micronutrients, which further discourages their consumption. Compounding this situation is the fact that the older people often suffer from decreased immune function, which contributes to this group's increased morbidity and mortality. Other significant age-related changes include the loss of cognitive function and deteriorating vision, all of which hinder good health and dietary habits in old age.

Elevated serum cholesterol, a risk factor for coronary heart disease in both men and women, is common in older people and this relationship persists into very old age. As with younger people, drug therapy should be considered only after serious attempts have been made to modify diet. Intervention trials have shown that reduction of blood pressure by 6 mm Hg reduces the risk of stroke by 40% and of heart attack by 15%, and that a 10% reduction in blood

cholesterol concentration will reduce the risk of coronary heart disease by 30%.

Dietary changes seem to affect risk-factor levels throughout life and may have an even greater impact in older people. Relatively modest reductions in saturated fat and salt intake, which would reduce blood pressure and cholesterol concentrations, could have a substantial effect on reducing the burden of cardiovascular disease. Increasing consumption of fruit and vegetables by one to two servings daily could cut cardiovascular risk by 30%.

OBJECTIVES

To estimate the prevalence & associated risk factors of malnutrition among the geriatric population at the outpatient clinic in Bangalore Baptist Hospital.

METHODOLOGY

A cross-sectional observational epidemiological study was conducted amongst 307 patients (≥60 years). A questionnaire based interview was conducted with the patient at the Outpatient clinic of the Geriatric Clinic in Bangalore Baptist Hospital. The nutritional status was assessed using the Elderly Related General Health Assessment, Mini Nutritional Assessment (MNA) questionnaire, Barthel Index of activities of daily living. Biochemical tests were also done as and when possible.

RESULTS

A total of 307 patients, voluntarily participated in this study and 304 completed the questionnaire.

The overall prevalence of malnutrition was 7.23%. This is relatively lesser than found in the study done in Netherlands where the Prevalence of malnutrition and risk for malnutrition were 17% and 58% out of 448 outpatients, mean (SD) age was 80 (7) years.¹

The General health assessment revealed that the health status was good in 5.2 %, average in 78% and satisfactory in 15.8 %.

Barthel Index scores revealed that 2.63% had low activity level, 9.21% had moderate and 88.16% had satisfactory level of activity.

Based on the MNA initial screening, 192 participants (63.1%) were at risk of malnutrition. On subsequent assessment of these patients, 11.4% patients were found malnourished and 75.5% were at risk. Loss of appetite, involuntary weight loss, presence of neuropsychological factors and restricted mobility were found to be significant risk factors associated with malnutrition ($p < 0.05$).

ORIGINAL ARTICLE

CONCLUSIONS

Malnutrition is highly prevalent among geriatric outpatients and is independently associated with depressive symptoms, poor functional status, and life style factors.

The study revealed the overall prevalence of malnutrition among the elderly studied as 7.23 %. On further MNA screening of 192 participants, 11.4% were malnourished and 75.5% were at risk. This emphasizes the need to consider these factors in management of the geriatric population. A poor nutritional status carries a substantially greater risk of death and/or loss of dependency in older adults.⁴

The results of another study also emphasize the importance of integrating nutritional assessment within a comprehensive geriatric assessment.¹ Nutritional assessment

and treatment should be a routine part of care for all elderly persons, whether in the outpatient setting, acute care hospital, or long-term institutional care setting.²

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Sharanas' Holistic Concept of Ageing

AVINASH KAVI*

12th century marked a remarkable milestone of revolution in the history of Karnataka. This great revolution was inspired and initiated by Vishwaguru Basavanna, a great social reformer and prophet who led the socio-spiritual, cultural, educational revolution along with many other sharanas. Upliftment of women and downtrodden, mercy to all living beings, dignity of labour, equality in every respect, were a few of his core principles. One of the important aspect of sharana culture was to live for today, never to be scared or worried about tomorrow. The principles of Basavanna were straight forward, socially and scientifically acceptable. Vachana literature was an off shoot of this revolution which is a unique literary work based on the social and mystic experiences of day to day life. Vachanas cover most of the humanitarian values which are applicable to our day to day life even today.

Today globe is witnessing a rapid social, epidemiological transition. Change in the population dynamics has led to change in the priorities of many nations. One of the biggest social transformations is 'population ageing'. Since the last century, life expectancy has increased dramatically as a result of advances in medicine and better quality of life and more mankind has been adding years to life. As an impact of this, the world will soon have more older people than children. Ageing concerns each and everyone – whether young or old, male or female, rich or poor – no matter where we live. Ageing is inevitable part of life. It's a matter of concern because of increasing dependency on the working population.

The World Health Organization (WHO) propagates a new concept of 'Active Ageing'. Ageing begins soon after the formation of zygote; hence it is a journey from 'womb to tomb'. But most of the age related problems are seen at old age. Considering various aspects of health care needs, ageing indeed has many dimensions which require special attention.

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Basavanna and other sharanas in their vachanas have addressed regarding certain aspects which can provide solutions in a newer perspective.

Basavanna in one of his vachana says, about the inevitable ageing and the need to recognise the ageing at an early age to lead a fruitful life.

"I was born, they say. Ayya, I have no birth.

I was dead, they say. Ayya, I have no death.

If born, I would take paadodaka and prasada from you.

If dead, I would arrive at your holy feet.

What if the sandal tree is in the town or in the forest?

Fragrance is the same, Koodalasangamadeva."

The above vachana describes the essence of life between birth and death. Both the birth and the death are uncertain; whereas the life is precious. Many people waste their valuable time in thinking about life after death. The soul doesn't succumb to death. As the sandal tree fragrance doesn't change with the place, so is the soul. Hence this reminds us that ageing is for the body and not for the soul. The fruitful experiences of life makes the person more worthy as ageing advances.

Basavanna describes the ageing process and the need for early awakening of the consciousness. As we are quite aware that ageing is inevitable, so also life is full of challenges and responsibilities for which we are accountable.

*"Before the temples grow sallow chin wrinkled,
before body caves in, before teeth fall and back bends,
before the body becomes obliged to others,
before putting one's hand on legs and leaning on the
stick,
before old age ruins your looks,
before death touches you, worship Koodalasangama-
deva."*

ORIGINAL ARTICLE

“Get up early in the morning; bring holy water and leaves,

Worshiplinga before its time.

When the time is up and you are taken to the grave who will know you?

Before time is over before death takes you away, do the servant-work of Koodalasangamadeva.”

The functional capacity of an individual’s biological system increases during the early years of life, reaches its peak in adulthood and naturally declines thereafter. The rate of decline is determined, part by our behaviours and exposures across the whole life course. These include what we eat, how physically we are active and our exposure to health risks. Sharanas had a different perspective about health and its dimensions. They divinized the body (Prasada Kaya) to do truthful work (Kayaka) and give back to the society in the form of charity (Dasoha). Thus they declared that **“Work is Bliss divine or even more than worshiping God”**.

Every person should be active, creative and perform his duty with interest and zeal. Creative mind can create wonders. This is virtually the concept of ‘active ageing’, which is described as a process of optimizing opportunities for health, participation and security in order to enhance quality of life as people age. It applies to both individuals and population groups at large. Healthy ageing is linked to health in the earlier stages of life. Sharanas also accepted this phenomenon and advocated a creative and healthy ageing because how we age depends on many factors, including our life style. Suitable modifications have to be made so that ageing should not affect a person or his personality.

Sharanas philosophy of life is not restricted to the materialistic world but they think beyond that.

“Look at the tenacity of saving water bubble, binding it in iron frame.

Worship the great benefactor Koodalasangayya and be saved.

Don’t be sure of the body.”

The uncertainties of life are compared here as a tenacity of saving a water bubble by binding it in an iron frame. Hence good deeds and thoughts should surround us rather than being attached to the external materialistic life and objects. Spirituality should be the way of life, which determines the way we age.

We are concentrating on prolongation of life i.e., adding

years to our life. But really what matters at the end is ‘the life we have added to those years’. Basavanna tells this very aptly in one of his vachana.

“What if you earn good name and live five days?

What if you earn good name and live four days?

What if you earn good name and live three days?

What if you earn good name and live two days?

What if you live for a single day earning good name in the vachanas of Sharanas, Koodalasangamadeva!”

A great mystic sharane Akkamahadevi in her vachana tells about the life that it is precious gift of God which needs to be used but not be abused.

“Years passing, future receding,

wife and children, once together are going their separate ways.

Don’t, do not let your life be a barren field.

Vow to surrender yourself and live,

O heart, in the company of Chenna mallikarjuna’s sharanas”

“Before your span of life is measured out with mornings and evenings,

think of Shiva, oh think Shiva.

This life does not come again.

Thinking of Lord Chenna mallikarjuna, even the hardened criminals have attained deliverance!”

“They pine away for food all morning;

They pine away for their lust all night;

Like a washer man dying of thirst even when he is in the water

They do not know the great thing inside them, Chenna mallikarjuna.”

Adding life to years means, living the life in a healthy, contented and fruitful manner. Man is a social being. Compared to the happiness in gaining wealth, happiness obtained in sharing is greater; because life is all about giving and sharing good deeds which will last forever. We have to live the life in reality but it seldom occurs because we are amidst world of fantasy. This self-realization is essential to lead a meaningful life. Every person should identify the hidden potential inside and channelizing one’s energy in a proper direction will make ageing more comfortable.

Sri Mallikarjuna Panditharadya, a mystic sharana also supports this view in one of his vachana, where he clearly mentions that nothing in this world is permanent. We need

to serve the society humbly with a blend of spirituality, before we are aged. This will aid to healthy ageing.

*“When you have money and youth,
you will not say ‘Shiva I submit to you’.*

*Oh, man ! Remember Shiva, remember before you are
undone.*

Wealth will not stay, nor your youth or life.

*Knowing this think of Sri Mallikarjuna before you are
destroyed.”*

Sharana Laddeya Somanna admires life in a different perspective. We have to live the life with optimism and hope.

*“Whatever be the kayaka, doing one’s kayaka,
Presenting everything to guru, linga and jangama,
Receiving whatever remains and wishing well –
Suffer if you’re sick, howl if are in pain,
Die if death comes.*

Why do you need a God for this, Laddeya Soma?”

Disease, sickness, suffering or even death is bound to occur in one’s life. It’s a human tendency to blame others or God for their suffering. Sharanas advised never to worry about the past or future, but to lead the life with positive attitude and live in the present. We should be ready to

shoulder our responsibility which is an important determining factor of active ageing.

Winning the death (a natural event) may be considered from another point of view. Great soul like late saints, religious teachers and scientists of repute and men of achievements are the ones more close to us than the ones who are actually living with us. For example, Buddha, Mahaveera, Jesus Christ, Mohammed, Basavanna, Allamaprabhu, Akkamahadevi, Guru Nanak, Vivekananda, Galileo, Newton, Einstein and others have lived even after their deaths. They may be considered as persons having conquered death by their unforgettable contributions to the world. Their lives are role models for the entire humanity. In a true sense they have added life to the years. Therefore the natural process of ageing should be fruitful and the life experiences should benefit the society.

Today’s youth will be aged tomorrow. We have to plan or rather program the ageing process. The physical, mental, social and spiritual dimensions of health need to be addressed to assure happy and healthy ageing. Basavanna and all the sharanas have addressed this issue, through their vachanas in a newer perspective and provided a new dimension of thought. Adopting these principles will help us lead a better life and make the world a better place to live and cherish.

Primary Amyloidosis in Elderly – An Interesting Case

SK GULATI¹, DS GULATI²

INTRODUCTION

A 72 years male (diabetic, controlled on diet and OHA, and ex smoker 15 years) presented with complaints of pain and paraesthesias of both hands in the distribution of median nerves for last 8 months. He underwent nerve conduction studies which were markedly reduced in velocity. MRI was also done of cervical spine and both hands which showed bilateral carpal tunnel syndrome and evidence of cervical spondylosis. He was seen by Orthopaedician and advised surgical intervention which was done in right hand first without any relief and repeated again but he did not improve. He refused for left sided carpal tunnel intervention. He kept on taking analgesics and neurotropic drugs without any response for next 4 months.

He also started having forgetfulness and a calculia, excessive salivation, slowness of movement and dysphagia along with features of depression and seen by me and neurologist and labelled as 'Parkinson's disease. Depression – Dementia complex' due to atherosclerosis and ageing. He was advised treatment for above ailments but to no relief.

Meanwhile he started having difficulty in deglutition and was seen by ENT specialist who diagnosed him to be having strong suspicion of carcinoma base of tongue as he had very hard and grossly enlarged tongue for which the patient underwent tongue biopsy from posterior part of tongue twice but there was no evidence of malignancy on histopathological examination. He was given course of 15 days of antifungal treatment which only helped in removing the necrotic tissue without any relief. The tongue was still hard to feel.

As he was having dysphagia, upper GI endoscopy was done by gastroenterologist which led to some GI diseases like hiatus hernia, oesophageal diverticulum and oesophagitis by gastroenterologist but his 10 days regimen of PPI and supportive measures did not help. Patient had lost weight by 10 kgs during this period due to inability to swallow any solid food.

Finally he was seen by an oncologist who diagnosed him clinically as a case of "Primary amyloidosis" on these grounds that there is amyloid deposition in all these entities like Alzheimer's disease, carpal tunnel syndrome, macroglossia and double the size of tongue lying on lower jaw giving hard feeling and their markins on tongue.

With this suspicion he did the biopsy of anterior part of tongue from front as well as lateral side and proved the diagnosis by histopathology as amyloidosis with positive Congo red staining and positive "free light chains" on serum electrophoresis, myeloma M band was negative and so were bence jones proteins".

DISCUSSION

What is primary amyloidosis?

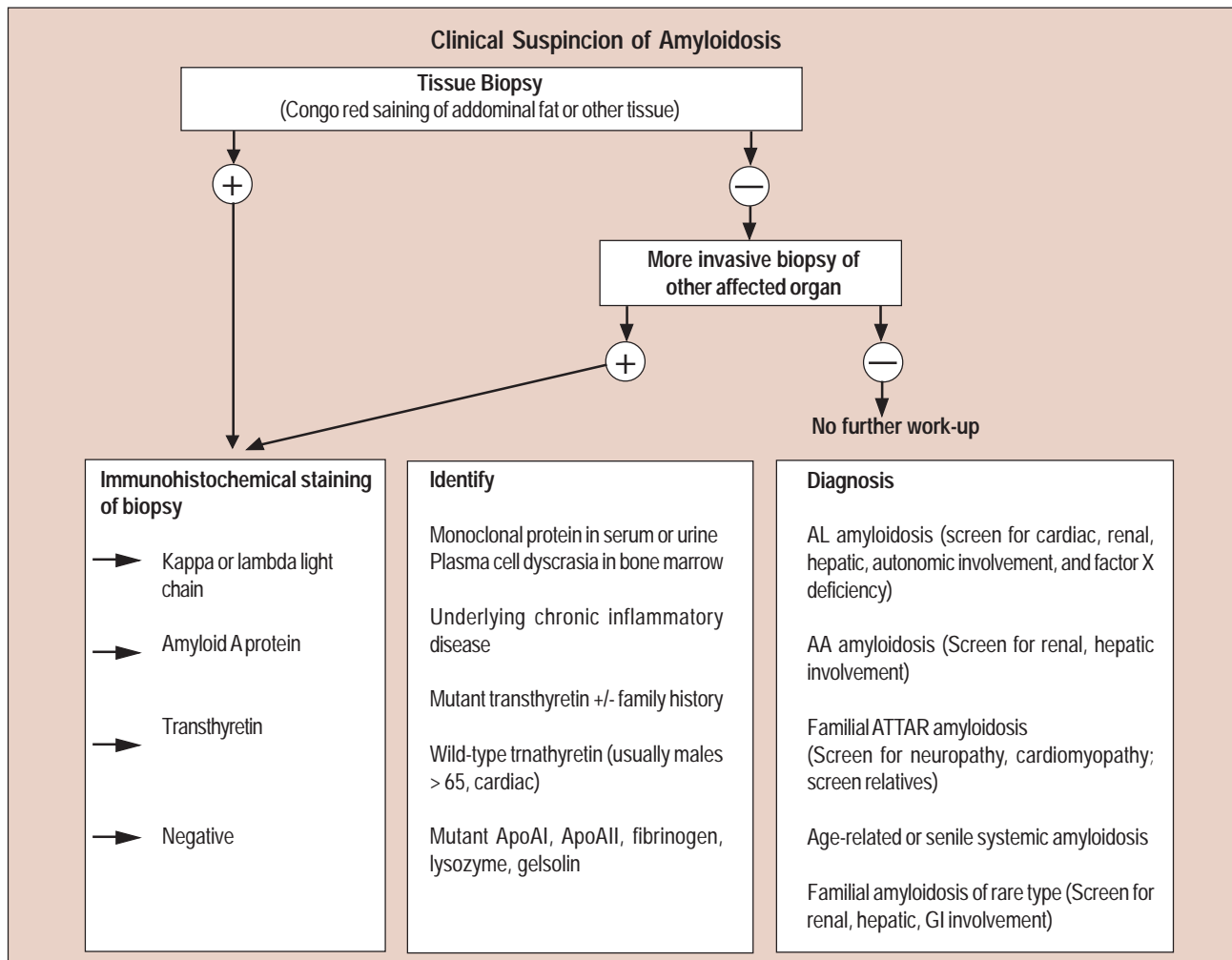
Amyloidosis is the term for diseases caused by extracellular deposition of insoluble polymeric protein fibrils in tissues and organs and leads to misfolding of proteins e.g. in Alzheimer's and genetic diseases leading to loss of function of proteins due to mutations and aggregation (cystic fibrosis disease) and without any secondary causes like Collegenosis, chronic inflammatory and infectious diseases and granulomatosis. These proteins are called 'amyloid fibrils' and are beta pleated sheet structural conformation with unique staining properties. The term amyloid was coined by Pathologist Rudolf Virchow in 19th century and under microscope these appear to be cellulose like.

Classification of Amyloid diseases

(By biochemical nature of protein in the fibril deposits) – According to their distribution whether systemic or localized; acquired or inherited and by clinical pattern as depicted in Fig. I. (AX – A → Amyloid and X – Protein).

AL is amyloid composed of immunoglobulin light chains (LCs). It arises from clonal beta cell disorder associated with myeloma or lymphoma (primary systemic amyloidoma). In secondary amyloidosis – A protein occurs in the setting of chronic inflammatory or infectious diseases. AB₂M is amyloid composed of beta 2 micro-globulin and occurs in end stage renal disease (ESRD) of long duration.

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In localized amyloidosis AB is the most common form of protein deposition in various organs e.g. brain in Alzheimer's disease.

Diagnosis On histopathology findings of amyloid deposits and immunohistochemistry or biochemical identification of amyloid type in various biopsy specimens.

Tissues involved by Congo Red staining

1. Blood vessels of Gingiva (80%)
2. Fat of abdominal wall (in systemic amyloidosis)
3. Kidney, heart, liver, gastrointestinal tract

Beta shell structures of amyloid deposits exhibits apple green birefringence by polarized Light microscopy: 10 nm diameter fibrils on electron microscopy of Para formaldehyde fixed tissue. Protein type can be identified by spectroscopy or histochemistry and based on history and clinical examination the diagnosis is established.

CBC normal, ESR may be raised. Monoclonal protein in serum and urine.

Proteinuria present in renal cases (30g/dl) Hypoalbuminemia.

Brain natriuretic peptide increased in cardiac pro BNP, troponin – prognostic factor.

Alkaline phosphatase elevation and transaminase elevation and in liver diseases.

Endocrinopathies – Hypothyroidism; Hypoadrenolism and hypopituitarism.

So amyloidosis is caused by clonal expansion of plasma cells in bone marrow, secreting a monoclonal immunoglobulin LC depositing in amyloid fibrils e.g. multiple myeloma; lymphoproliferative disorder and non Hodgkin's lymphoma and Waldenstrom macroglobinaemia.

TREATMENT

1. Surgical resection
2. Radiation therapy
3. Systemic Treatment of primary amyloidosis

CASE REPORT

If no treatment is possible, median survival time in 1-2 years from the time of diagnosis of the entity with multi-systemic involvement.

Current therapy

Target the clonal bone marrow plasma cells.

Cyclical treatment consists of the following (3 cycles, weekly interval)

Oral melphalan & Prednisolone

They decrease the plasma cells burden, complete haematological remission in a few percent of patients, as median survival time is 2 years other regimens are preferred.

Dexamethasone substitutes in place of prednisolone leads to higher response rate and longer remission. Of course it has side effects of oedema, and cardiac failure to be kept in mind.

High dose Melphalan (intravenous) followed by stem cell transplant produces complete haematological response in 90% of treated cases with disappearance of all plasma cells and monoclonal LC leads to good quality of life.

It is better than seen in multiple myeloma with life prolongation upto 15 years in a few cases without additional treatment but half of the patients are eligible for SCT and there is peritransplant mortality also due to amyloid cardiomyopathy, poor nutritional status and multiorgan involvement. There is also bleeding tendencies due to adsorption of clotting factor x to amyloid fibrils.

Recently novel agent have arrived on the scene.

The immunomodulators like thalidomide and Lenalidamide

1. **Proteasome inhibitors** e.g. BORTEZOMIB found to be effective.
2. **Combination therapy is more useful**
3. Supports like care with colony growth stimulating factors which avoid leucopenia and injection Filgrimstine daily for 3 days in every cycle is also recommended.
4. Role of diuretics in nephritic syndrome and CHF is to reduce oedema and dyspnoea as other drugs like digoxin, ACE-I, CCB are contraindicated due to infra... with amyloid fibrils and worsen CHF.

Localised amyloidosis as in the airway, skin, bladder or lymph nodes need surgical resection or radiation therapy.

Step 1

Avoid completely foods and drinks that especially encourage the buildup of amyloid protein such as refined sugars found in soft drinks, desserts, sodas, many baked goods and candies. Also avoid caffeine, found in coffee and tea and many other drinks. Avoid most refined dairy products. Food additives such as monosodium glutamate, flavorings, colorings and other chemicals are best avoided.

Step 2

Limit your consumption of meats, particularly red meats.

Limit or avoid processed food to improve health and build resistance to disease. Processed foods generally contain ingredients and additives that encourage amyloid protein buildup in the body.

Step 3

Eat the standard, healthy foods such as fresh fruit, vegetables, cold water fish and seeds such as sesame, sunflower and flax seed. Include nuts such as walnuts, almonds, pecans and hazelnuts. Add whole grains such as brown rice, buckwheat, millet, quinoa, oats and barley; they are all rich in vitamins and minerals and should be included as a staple part of the diet.

Step 4

Include nutritional supplements as part of creating healthier eating habits and preventing the buildup of amyloid protein. These supplements include fish oil which is high in omega 3 fatty acids essential to health. Before taking fish oil, consult with your doctor since it can have a blood thinning effect and you want to be certain it does not react with any medication you may be taking. Antioxidant supplements are also beneficial and worthwhile including in your daily diet. Bromelain, or pineapple enzyme, used as a supplement can aid the body in breaking down amyloid protein deposits.

SUMMARY

A diagnosis of amyloidosis should be considered in patients with unexplained nephropathy, cardiomyopathy (particularly with diastolic dysfunction), neuropathy (either peripheral or autonomic), enteropathy or the pathognomonic soft tissue findings of macroglossia or periorbital ecchymosis. Pathologic identification of amyloid fibrils can be made using Congo red staining of aspirated abdominal fat or of an involved organ biopsy specimen. Accurate typing using a combination of immunologic, biochemical and genetic testing is essential to choosing the appropriate therapy. Tertiary referral centers can provide specialized diagnostic techniques and access to clinical trials for patients with these rare diseases.

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An Unusual Cause of Breathlessness in an 86 Year Old Asthmatic Lady

SP TAMANE *, AA JOSHI**

An 86 year old lady, known hypertensive & having bronchial asthma on treatment for many years, presented with 2 weeks history of increasing shortness of breath & cough with gradual reduction in mobility. There was no history of fever or haemoptysis. She was non-diabetic. Symptoms were more severe after eating or drinking. On examination, Patient was alert, orientated, afebrile, normotensive; there was no tachycardia or tachypnoea. Oxygen saturation was 95% on room air. Blood sugar (Random) was normal. Auscultation revealed extensive wheeze. No abnormality was detected on per abdomen, cardiovascular & neurological examination. Routine work up was normal including haemogram, renal function, urine routine & electrocardiogram. Chest x-ray (Image 1) showed air fluid level in retro-cardiac region with loss of diaphragmatic outline in paraspinal region (Figure 1).

Patient was treated with oxygen, bronchodilators including nebulisers and antibiotics. In view of persistent wheeze, she was also given intra-venous hydrocortisone for short duration. Since her symptoms were not completely settling, 2D Echo-cardiogram & H.R.C.T (Thorax) with CT pulmonary angiogram was done. 2D echo-cardiogram was normal with left ventricular Ejection Fraction of 60%

H.R.C.T (Thorax) with CT pulmonary Angiogram (Images 2,3,4) did not show any evidence of pulmonary thrombo-embolism but showed large hiatus hernia with stomach & colon herniating contents in retro-cardiac region, bilateral minimal pleural effusion with right lower lobe consolidation.

Gradually patient improved with therapy & was discharged home.

In view of her age & co-morbidities, surgical option for hiatus hernia was not considered.

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DISCUSSION

Bochdalek hernias are congenital diaphragmatic hernias resulting from the failure of posterolateral diaphragmatic foramina to fuse properly in utero.¹ Symptomatic Bochdalek hernias in adults are relatively rare, but the incidence of asymptomatic Bochdalek hernias in the adult population has been estimated to be anywhere between 1 in 2000 to 7000 based on autopsy studies to as high as 6% in early CT findings. Symptomatic hernias may lead to incarcerated bowel, intra – abdominal organ dysfunction, or severe pulmonary disease (causing breathlessness, recurrent chest infections and other pulmonary sequelae).² Chest CT more accurately visualises focal deficits in the diaphragm and can definitely diagnose herniation better in comparison to plain chest x-ray.

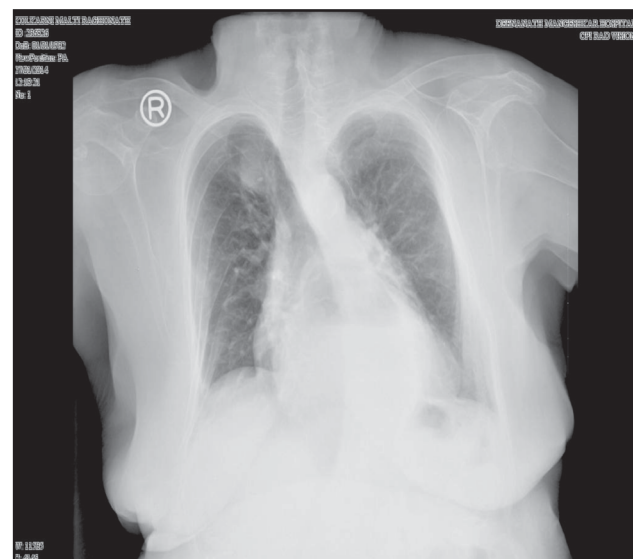


Figure 1: Showing air fluid level in retro-cardiac region with loss of diaphragmatic outline in paraspinal region

CASE REPORT

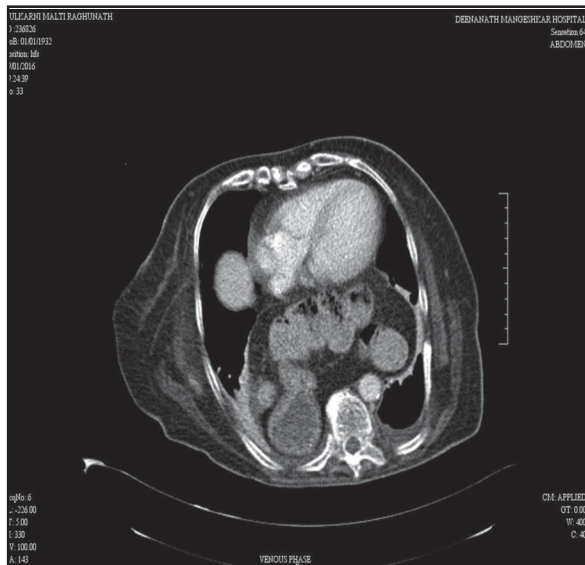


Figure 2

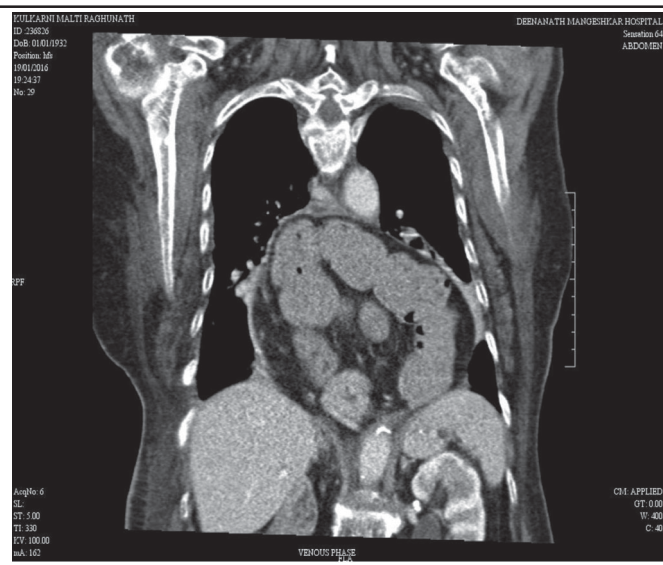


Figure 3

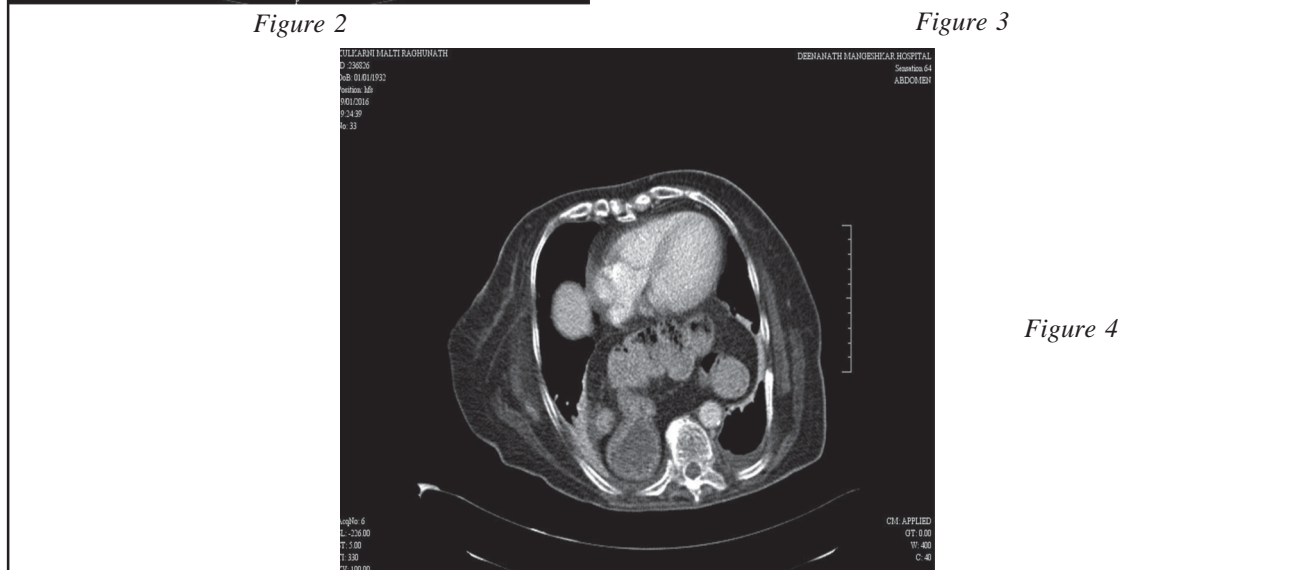


Figure 4

Figure 2,3,4: Shows large hiatus hernia with stomach & colon herniating contents in retro-cardiac region, bilateral minimal pleural effusion with right lower lobe consolidation.

Laparoscopic repair of symptomatic adult Bochdalek's hernias can be performed successfully and may result in significant clinical improvement.

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News from Nagpur

DR. SANJAY BAJAJ

A vaccination camp was organized by Vidarbha Chapter of Geriatric Society of India & Indian Menopause Society, Nagpur Branch at Panchwati Vruddhashram. During this occasion 45 senior citizens who were inmates of Matru Sewa Sangh run by Panchwati Vruddhashram, opp. Bada Tajbagh, Umred Road, Dighori, were given Influenza Vaccine. This was a onetime programme in which Influenza Vaccine to prevent Influenza among the old age home residents was given.

Dr. Jayant Pande President of GSI, Vidarbha Chapter welcoming all, highlighted the importance of preventive strategies in elderly. Dr. Sanjay Bajaj enlightend people with the importance of Influenza Vaccine. Other speakers on health issues in elderly were Dr. Alka Kumar. Dr. Swati Bajaj, Mrs. Asawari Deshpande. Staff of Home Care Medicine, administered the vaccines.



Dr. Sanjay Bajaj directing the camp

Dr. Mandakini Gupta on behalf of Matru Sewa Sangh expressed gratitude. Others present on the occasion were Dr. Jasjeet Chaudhary, Mr. Kelkar, Mr. Vasant Padhye, Usha, Eknath, Ashish, Shaligram, Dr. Sudhir Mangrulkar & Dr. Gaurav Jaiswal.

News from Belagavi

DR. M.V. JALI



Dr. P.S. Shankar, Dr. M.V. Jali and the KLE team

KLES Dr. Prabhakar Kore Hospital & Medical Research Center, Nehru Nagar, Belagavi as a part of their KLE Society's centenary year celebration launched "KLES Vaccine Advocacy Centre". This is India's first unit of Vaccine Advocacy Forum of New Delhi at KLE University, Dr. Prabhakar Kore Hospital, Belagavi. Dr. P. S. Shankar, Chairman Vaccine Advocacy Forum & Dr. M. V. Jali, Director - KLE University, Dr. Prabhakar Kore Hospital along with the doctors of KLE Hospital graced the occasion.

News from Rewa

DR. SACHIN DESAI

CME PROGRAM

Dr. S. K. Khanijo, a recipient Honorific Geras from Geriatric Society of India graced the CME organized jointly by IMA Rewa Branch & Geriatric Society of India at Rewa, Madhya Pradesh on 21st November 2015. On this occasion Dr Sachin Desai, Assistant Professor of Community Medicine at S Nijalingappa Medical College, Bagalkot was invited as a guest faculty. The CME was a part of 60th Annual conference of IMA, Rewa, organised by Rewa branch of IMA, MP Chapter. The title of talk was Geriatric Care: Need of the Hour. The theme of the conference was Evidence based practice: Safe for all.



Dr. Sachin Desai



Dr. S.K. Khanijo

News from Kolkatta

DR. KAUSHIK RANJAN DAS

WORLD ELDER'S DAY



Dr. Kaushik Ranjan Das directing the camp

World elder's day was celebrated by Geriatric Society Of India West Bengal Branch & Barrackpore Elderly Care Society on First October 2015 at CMDA Nagar, Barrackpore, North 24 parganas, West Bengal; This was organised as "ELDER'S FAIR" from 9.30 am. to 2.30 pm. & "Indoor game competition, prize distribution & short cultural session" from 5.30 pm to 8.00 pm were the main attractions. 400 People of different age groups (including senior citizens) have attended & participated in the meet & the unique programme was a grand success. All elderly were welcome with nasegay of ROSE & offered gift of respect.

Activities included (a) Memory screening by ARDSI Kolkata chapter (40 nos.) (b) Audiometry & display of hearing aid by SU-SHRUTA, Barrackpore (45 nos.) (c) Vaccine to elderly (pneumococcal & influenza) by Lupin pinacle (04 nos.) (d) Physiotherapy & assisting devices by UMA orthopaedics, ICCHAPUR, (e) Posthumous body donation (07 nos.) (f) Diet & Nutrition in elderly by nutritionist Sankar Prasad Das (30 nos.) (g) Insurance & mediclaim by New India Assurance Co. (h) Lipid profile & Uric acid by Lupin Diabetic care (26 & 50 nos. respectively) (i) Haemoglobin % by Wanbery Ltd. (50 nos.) (j) Spirometry by CIPLA (50 nos.) (k) BMD & blood sugar by Overseas pharma (80 nos. both) (l) Eye checkup, courtesy- AXIS bank, Chandan Pukur Branch through CURRAE eye Hospital (56 nos.) (m) ECG done by Rajat Chatterjee (45 nos.) & general health check up.

Seminar on Old age home in West Bengal - prevailing situation, problems & recommendations was organised in

which four daughters-in-law were awarded for their positive role in their elder's care, two significant social worker (Dipak Kumar Nag & Smt. Nanda Chowdhury) were felicitated & one best GSW (Asit Banerjee) was awarded at the meet.

The function was chaired by Sri Ashoke Kumar Roy. The guests included Sri. Pijush Goswami, Hon'ble SDO, Barrackpore; Sri Uttam Das, Hon'ble Chairman, Barrackpore Municipality; Sri. Nirmal Kar (Upa Prodhana, Mohampur Gram panchayet); Dr. S.K. Gope (Ex-President, IMA Bengal Br.); Dr. Anadi Nath Biswas (Hon. Sec. IMA Titagah br.); Dr. R.K. Sarkar (Hon. Sec. IMA Noapara br.); Dr. R.N. Maiti (GSI), Dr. Gopeswar Mukherjee (GSI); Dr. Krishnanjan Chakraborty (General Sec. GSI-WB br.); Dr. Jagadish Halder; Dr. Binayak Sen (Social Worker of International repute); Smt. Sharmila De (Principal P.N. Das College); Sri Dayamay Biswas (President CPDR), Sri. Sunit Gope (President, National Human rights commission); Sri Gaurango Dutta (International Human rights commission); Sri. Noni Gopal Biawas (President ABASARIKA, Palta); Dr. Mohan Dolui, Phd.; Dr. Swapan Chandra Dey (Director, AMPLICON Diagnostics Ltd.); Abdur Rahim Mehedi & others.

A write up on the subject drafted by Dr. Kaushik Ranjan Das was distributed to each participant of the seminar.

After elaborate deliberations an unanimous resolution has been adopted for transmission to appropriate places & as reads follows. (i) The state govt. will pass a new law / rule regarding, registration, management & monitoring of old age homes (including long term care centres) delineating clear guide line thereof. There should be provision of punishment

for defaulters. (ii) State govt. will immediately send its recommendation to central govt. for enacting new penal law titled "Protection of senior citizens from TORTURE." (iii) There must be a committee for monitoring the activities of oldage homes / senior citizens at subdivision level under appropriate legislation, that must include one geriatrician /Doctor, Geriatric social worker / Social worker, & one police personnel.

Recommendation of the committee will be given top priority by appropriate authority. (iv) State govt. shall undertake training of Geriatric Social worker / Care giver on large scale. (v) State Govt will remain vigilant that all project is undertaken, keeping the matter of graceful ageing in view by all concerned.

News from Delhi

DR. GARIMA HANDA



A round table meet on vaccine advocacy was organized by Geriatric Society of India, Vaccine Advocacy Forum and Influenza Foundation of India. Dr. Rakesh Kumar Joint Secretary MOHFW was the chief guest. He released Indian



Recommendations for Vaccination in Older Adults 2015. The delegates included members of GSI, VAF, IFI, NCCP, Pharma Industry, Army Medical Core and DGHS Bangladesh Dr. Nasir Ahmed Khan.



DR. N.S. NEKI HONOURED WITH IMA MEDICAL TEACHER AWARD FOR THE YEAR 2015

Dr. N.S. Neki, Professor of Medicine, was awarded most prestigious IMA (Indian Medical Association) Medical teacher award for the year 2015, by its national President Padam Shri Prof. Dr. M.A. Pillai in the 90th annual IMA CONFERENCE (IMANATCON 2015) held at Delhi, Dec 27, 28, 2015.

MTC GSICON 2016 Abstract

1. Can Yoga Protect Vascular Integrity in Ageing?

Satish G. Patil.

Ageing is one of the most important & powerful risk factors for the development of cardiovascular (CV) disease. Age-associated decline in vascular function and its integrity is the major event that most often impacts on the health of elderly people and longevity. The major structural and functional changes associated with vascular ageing are arterial stiffness and endothelial dysfunction, which are mainly implicated in the development of CV disease and hypertension in elderly. Nitric oxide (NO): a product of eNOS (nitric oxide synthase) of endothelial cells is a key molecule for vascular homeostasis and integrity; regulates vascular tone, vasodilation, vascular permeability and antithrombotic properties. Ageing is associated with reduced production and bioavailability of NO resulting in endothelial dysfunction. Decreased endothelial-dependent vasodilatation forms the earliest indicator and major cause of CV diseases including diabetes and hyperlipidemia. Yoga has an established CV health benefits and is emerging as an important lifestyle modality for prevention and management of CV risk. Although the available information is limited, a survey of the literature concerning the effect of yoga on vascular ageing suggests that yoga can protect vascular integrity and promotes healthy ageing.

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2. Clinical Profile of Falls in Elderly

Kolli SS*, Ambali AP**

Introduction: India is in a phase of demographic transition. The geriatric population is steadily growing. As the geriatric population is growing fast, the major area of concern is their health with multiple medical and psychological problems. Falls are one of the major problems in elderly and they are one of the common causes for morbidity and mortality.

Objective of The Study: To study about falls in elderly, risk factors, consequences, co-morbid conditions and outcome.

Methods: The patients above 60 years irrespective of sex

with the history of fall admitted in orthopedics ward of BLDEU'S Shri B.M Patil Medical college Hospital and Research Centre, vijayapura, retrospectively from 1/5/2015 to 31/12/2015 are included in the study. Preliminary data, mode of fall, consequences of fall, associated comorbid conditions and interventions done are entered into the pro-forma. Results are analyzed and reported in this study.

Results: Among 50 patients with the history of fall, 28 (56%) are females and 22 (44%) are males, of them 68% are between the age group of 60-74, 26% between 75-84, 6% patients are >85 years age. Hypertension is common comorbid noted. Elderly who had history of falls in past is seen in 12% of study group. The common fracture noted is fracture neck of the femur in 30%, fracture of radius in 20% followed by vertebral compression that comprises of 16%. Among 50 patients, 29 patients (58%) got operated, 26% are managed conservatively, 14% patients refused for surgery and one patient (2%) was not fit for surgery.

Conclusion: In this study it is observed that females are more at risk of falls in geriatric age group. Age group between 60-74 years is high risk for falls. Falls are directly related to the comorbid conditions and they are more prone for repeated falls. Neck of femur is the most commonly affected in falls related injuries followed by radius bone fracture and vertebral compression.

Key words Falls, Elderly, Fracture.

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3. Assessment of Foot Care Practices and Foot Complications Among Diabetic Subjects in Urban Field Practice Area of Kempegowda Institute of Medical Sciences, Bangalore

ChitraNagaraj1, Raaghav 2

Introduction: Diabetes mellitus is one of the most common chronic diseases and the prevalence of this disease is rising very rapidly across the world. Among the complications of diabetes mellitus, diabetic foot infection is the common cause for the hospital admissions in India. Diabetic foot problems are the leading cause of lower extremity

amputations. The main factors accounting for this increased risk are peripheral neuropathy and vascular disease and the lack of self foot care practices. In order to prevent foot problems, early identification of complications by foot care practices are important. Indian data regarding various aspects of foot complications among diabetic patients is very scarce. so this study is taken with the objectives, to describe socio demographic profile of study subjects, to assess neurological complication of feet in study subjects, to assess vascular complication of feet in study subjects, to assess the foot care practices in the study subjects.

Methodology Study subjects :Known Diabetic subjects

Study Duration: 6 months

Study design: Community based Descriptive Stud

Sample design: Simple random sampling
> Sample Size: 170 Known Diabetic subjects. House to house survey was done in the study area and all known diabetics (480) were identified. 170 subjects were chosen randomly considering inclusion and exclusion criterions and who were willing to participate in the study. Socio demographic profile, clinical and biochemical profile of study subjects were noted. Examination of foot was done to assess neuropathy and PVD. Thorough examination of foot by inspection was done to identify the foot deformities, foot care practices were assessed using an observation checklist. Data analysed using percentage, mean, standard deviation, chi-square test.

Results: Among 170 subjects mean age of subjects was 53.69 years with SD of ± 11.01 years, most of them i.e. 53% were males. 73% subjects were belonging to upper lower socio economic class. Mean duration of diabetes was 6.2 ± 5.3 years, mean BMI was 25 ± 4.9 kg/m². mean PPBS was 225 ± 90 mg/dl in the subjects. 26% had Hypertension, 11% of subjects were smokers, Diabetic peripheral neuropathy and PVD was found in 12% and 3% of the subjects respectively, more common in the age group 50-60 years (54.54%), and age >70 years (50%) respectively. The association between duration of diabetics and presence of Neuropathy and PVD of feet were statistically significant ($p < 0.05$). Self foot care practices was done by 29% subjects. 56% study subjects did not follow any of footcare practices. Foot infections were present in 4% of study subjects. Corn (5%) was the most common associated foot complications in study subjects. Conclusion: Neuropathy and PVD of the feet are important complications of long standing diabetes. Lack of awareness and practices of foot care practices is one the major reasons of increase in the associated complications of foot in the study subjects.

Key words: Diabetic Mellitus, Diabetic Foot problems, Self foot care practices .

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4. The prevalence of loneliness among geriatric population in an urban area of Bengaluru.

R Anil, Prasad KN

Introduction: Loneliness affects all the individuals, but the extent of problem or prevalence among geriatric population is not really known. This study is conducted to estimate the co-morbid conditions and disabilities affecting daily activities related to old age influencing on loneliness.

Objective: To estimate the prevalence of loneliness and factors influencing it among elderly aged population.

Methodology: A community based, quantitative, descriptive, cross sectional and explorative study was conducted among 370 elderly population residing in ward 32 in Bengaluru city, during July and August 2015. The data was collected at their door steps using revised UCLA loneliness scale and analysis was done using SPSS.

Result: The prevalence of loneliness with a score of 50 and above was 38%, among males and females it was 30% and 43% respectively. The increase in prevalence was directly proportional to their age group. The people aged 70 years and above were more affected (50%). The prevalence of loneliness increases as the family size decreases (86%), spouse separated or dead (47%), presence of disabilities affecting daily activities (88%) and financial dependency (39%). Loneliness was not influenced by suffering from non-communicable diseases.

Conclusion: Loneliness is a serious mental health problem among the urban elderly aged with decreased family size, presence of disabilities affecting daily activities and financial dependency. A suitable rehabilitation or occasional interaction sessions are to be planned in order to minimize the loneliness.

Keywords: Loneliness, Elderly, Urban area, Bengaluru.

Post Graduate, HOD. Department of Community Medicine, Dr.B.R.Ambedkar Medical College, Bengaluru.

5. Physiological correlation of perceived stress in hospital nursing and non nursing supportive staff.

Syed Shah Mohammed Faiyaz, Krishna AP, Mirajkar AM, Patil SL.

Background: Stress which is a physiological, psychological human response, the manner in which human body reacts to such conditions is exactly what stress is known as. Stress supposed to be known as the imbalance between perceived threats and coping capabilities of individuals.

Materials and Methods: The present study aimed to understand the interplay among the lifestyle habits, body weight, physical activity, work stress among nursing professionals and non-nursing professionals. A study with 240 professionals (120 nursing staff, 120 non-nursing supportive staff) within age group 40 to 60 years are examined, how these employee copes up with anxiety and uncertainty in the run-up to hectic working hours. Validated and scientifically accepted scale for perceived stress (PSS) was used, to examine stressful life events and its adverse effect on professional health; different physiological parameters were estimated using standard protocols. The final data analysis was done by using appropriate statistical analysis.

Results: The overall prevalence of stress found to be more statistically significant in both the groups in terms of their Age, BMI, and Blood Pressure ($P < 0.05$). The stepwise analysis indicated that increased BMI, changes in Blood Pressure is closely associated with increased levels of perceived stress in nursing staff.

Conclusions: This study first of its kind in this southern part of India, which significantly contributes to the theory, expand empirical literature, and practices related to perceived stress level assessment. This study clearly highlights that nursing staffs are suffering from moderate level of perceived stress. The results of this study allow us to affirm that perceived stress level assessment can be used to find out the occupational related stress among professionals.

Keywords: Stress, nursing staff, perceived stress, occupational stress

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6. Coronary arteriographic profile of geriatric patients with ischemic heart disease in a tertiary care centre of Maharashtra

M. S. Borkar (Sonavani), Shailaja V. Rao**, Vimlesh R. Pandey***, Shradha Runwal****

Objective: To analyse the coronary arteriographic pattern in patients with ischemic heart disease in geriatric patients (age > 60 yr) and to compare it with arteriographic pattern in young and middle aged (age < 60 yrs) ischemic heart disease patients.

Methods: This is hospital based cross-sectional study. We analysed coronary arteriographic profile of all the geriatric patients with ischemic heart disease who had undergone coronary angiography from Jan-2015 to Jan-2016 in detail and compared it with young and middle aged patients of ischemic heart disease undergoing coronary angiography during same period.

Results: Total number of patients in group 1 (age > 60 yr) was 111 and in group 2 (age < 60yrs) was 149. Coronary angiography was found to be normal in 34/111(30.6%) patients in group 1 and 38/149(25.5%) patients in group 2. Single vessel disease (SVD) was most common form of involvement seen in 48/111 (43.2%) patients of group1 and 64/149 (42.9%) patients of group 2. In SVD left anterior descending coronary artery was the most common culprit artery in both the groups, 23/111 (20.7%) in group 1 and 49/149(32.8%) in group 2 ($p < 0.03$), followed by right coronary artery involvement in 12/111(10.8%) in group 1 and 9/149(6%) in group 2 ($p = NS$). Double vessel disease affecting right coronary artery was the second most common form of involvement in both the groups, 17/111(15.3%) in group 1 and 27/149(18.12%) in group 2. The incidence of triple vessel disease was 12/111(10.08%) in group 1 and 17/149(11.4%) in group 2. Left main coronary involvement and coronary ectasia were exclusively seen in group 2.

Conclusion: Single vessel disease was most common form of involvement and LAD was most common culprit vessel. Left main coronary involvement and coronary ectasia were exclusively seen in age group less than 60 years.

Professor and HOD, **Associate Professor , * Resident Department of Medicine, Govt. Medical College, Aurangabad. Maharashtra.*

7. The Effect of Blood Pressure Normalization Interventions on Cognitive function of Senior Citizens with Low Blood Pressure and Mild Cognitive Decline (BP Norm Cog Study).

Chaitanya Siva Marupudi, Prabha Adhikari.

Introduction: The number of people suffering from Alzheimer's disease or related dementia is increasing worldwide as well in India. Several studies have shown association between low blood pressure and cognitive decline, however no interventional studies have been done so far.

AIM: To see the effect of blood pressure normalization interventions on cognitive function of senior citizens with low blood pressure, and mild cognitive decline.

Materials and Methods: A sample of 44 senior citizens with low blood pressure Systolic <130 mm Hg or Diastolic <70 mm Hg and mild cognitive decline(MMSE/MOCA=20-27) was considered after informed consent. Mild cognitive impairment was defined as per DSM-IV criteria and measured by MMSE/MOCA. Low blood pressure was defined and

measured by JNC 8 guidelines. Antihypertensives were withdrawn or fludrocortisone added with regular monitoring of blood pressure and cognitive scores. Unpaired t test was used to compare changes in BP and cognitive function between cases and controls.

Results: Mean SBP/DBP in cases at baseline, week 4 and week 8 were 118.73±7.19/67.77±6.42mm.Hg, 129.77±8.97/75.55±5.99mm.Hg, 135.82±8.5/79.27±4.65mm Hg respectively.

Mean SBP/DBP in controls at baseline, week 4 and week 8 were 117.82±9.22 /70.5±5.29mmHg, 120.23±9.29/71.91±4.84mmHg, 120.86±8.44/71.41±4.81 mm Hg respectively. Mean cognitive scores in cases at baseline, week 4 and week 8 were 22.95±2.08 25.54±2.46, 7.54±1.99 respectively. This improvement was both statistically significant (p value =0.0001) and clinically significant (diff=4.51). Mean cognitive scores in controls at baseline, week 4 and week 8 were 22.22±1.26, 23.27±1.48 and 23.40±1.43 respectively which appeared statistically significant but not clinically significant

Conclusion: First ever interventional study showing that normalization of blood pressure in senior citizens with low blood pressure was associated with significant improvement in cognitive function.

Keywords: senior citizens, low BP, mild cognitive decline. Department of Medicine, KMC, Mangalore.

8. Depression Among Rural Aged Population: A Cross Sectional Study

Sanjay. T. V¹, Nimin Hafeez², Ganga Boraiah³

Background: In the ageing population, multitude of socio-cultural, economic and physical health problems has tremendous impact on psychological status making them more prone for depression. Depression in aged population is a serious, emerging public health concern leading to unnecessary suffering, excessive use of health care resources and increased mortality. Most often depressive symptoms are likely to be dismissed as 'normal' by elderly, their family members and even health care providers. In Indian context, epidemiological studies on depression in aged population from rural areas by involving valid and reliable screening tool like geriatric depression scale (GDS-15) remain scant. From a global perspective and public health point of view, it is clearly important to document the distribution and characteristics of depression in later life in developing countries like India where 1/8th of the world's elderly live. In this context, the present research is being undertaken.

Objectives. To assess the prevalence of depression among aged people using Geriatric Depression Scale – 15 (Kannada version). 2. To find out the association between socio-demographic characteristics and depression. 3. To find out

the association between falls and depression 4. To find out the association between adverse life events and depression.

Methodology: A community based cross-sectional study was conducted in the rural field practice area of Kempegowda Institute Medical Sciences, Bangalore with a sample size of 990 elderly from August to December 2015. The area was divided into 30 clusters based on cluster sampling technique. After obtaining the approval from the institutional ethics committee (IEC), house to house visit was undertaken and the house hold having elderly above 60 years was identified and enrolled into the study after following inclusion and exclusion criteria. After getting informed consent, the elderly was screened for cognitive impairment using Kannada translated version of Brief Community Screening Instrument for Dementia (CSI-D). When found cognitively normal, then Depression was assessed by using validated Geriatric Depression Scale – 15 Kannada version and information was also collected regarding socio-demographic characteristics, Falls and Adverse life events.

Results: The prevalence of depression among elderly was 38%. Mean age of elderly with depression was 68.6 ± 7.5. The factors such as female (43.5%), widowhood (47.8%), living alone (53.7%), not working (41.3%), illiterates (42.5%), poor standards of living index (SLI) (43.4%), financially dependent (40.3%), those getting financial assistance (42.9%), substance use (41.5%), history of falls in the past 6 months (51.9%), poor self assessed physical health status (19.7%) and adverse life events in the past one year (57.9%) were shown to be significantly associated with depression (p<0.05).

Conclusions: In this study, the prevalence of depression was found to be 38% and socio demographic characteristics, falls and adverse life events were significantly associated with depression.

Keywords: Depression, Cognitive impairment, Aged, Prevalence, Cross-sectional study.

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9. Study of intraocular pressure (IOP) changes in relation with blood pressure

Pushpa M B, Varsha A V, Biradar KG

Background: IOP is one of the vital factors whose maintenance within normal limit is essential for serving its normal function. IOP is influenced by various factors like smoking, alcohol, hypertension, sex hormones, pregnancy, medications etc. This study is undertaken to find out the effect of hypertension on IOP changes.

Methodology: A total number of 200 people with age group of 40 to 60 were included in the study. They were divided into two groups of each 100 normotensive and hypertensive. IOP was recorded in all individuals and was compared between two groups by using student t test. A P-value of <0.05 was taken as a statistically significant.

Results: Our study showed that there was a significant increase in IOP in hypertensive patients compared to normotensive patients.

Conclusion: There is a positive correlation between IOP changes in relation to blood pressure. So it needs to undergo regular eye check up for those patients with hypertension for early detection of glaucoma which is second leading cause of blindness.

Key Words: IOP, Blood pressure.

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10. An association between diabetic retinopathy and thyroid dysfunction in elderly.

Rikita R Mudhol, Srinivas B, Rekha R. Mudhol.

Objective: To determine the relationship between the prevalence of diabetic retinopathy and thyroid dysfunction in elderly.

Introduction: Diabetic retinopathy is one of the most common microvascular complications and the leading cause of blindness worldwide. Common risk factors for the development of microvascular complications include duration of diabetes, poor glycemic control, elevated blood pressure, and dyslipidemia. Thyroid disorders are widely common with variable prevalence among the different populations. Several reports documented a higher than normal prevalence of thyroid dysfunction in the diabetic population. Evidence from literature suggests that the intricate bond between subclinical hypothyroidism and diabetes mellitus deceptively contribute to the major complications such as retinopathy and neuropathy.

Research Design and Methods: A total of 100 type 2 elderly diabetic patients were screened for thyroid function. There were 12 type 2 diabetic patients with subclinical hypothyroidism. Those with more severe than moderate nonproliferative diabetic retinopathy were classified as having sight-threatening diabetic retinopathy.

Conclusions: Type 2 diabetic patients with subclinical hypothyroidism are associated with an increased risk of sight threatening diabetic retinopathy in elderly.

J N Medical College, KLE University, Belgavi.

11. How fit are our seniors?

Sandeep Gurram, Prabha Adhikari, Sheethal Raj.

Background: The functional fitness of elders in the later

years depends on the ability to do whatever they want as long as possible without suffering during the younger years. Identifying such unable elders and prescribing fitness exercises improves their functional outcome. Senior fitness test is a tool that assesses fitness in elderly and based on the normogram for age and gender, an individual can be classified as fit or less fit and exercises can be individualized. Hence we conducted a study to assess fitness of community dwelling elderly and compare them with western norms.

AIM: To assess fitness of community dwelling elders using Senior fitness test and compare the same with western norms

Methods: This is an epidemiological study using cluster samples from four localities of Mangalore involving 250 seniors from each, through door to door survey. Their baseline demographic and disease profile data were collected. Senior fitness tests were conducted using chair stand, armcurl, 6 minute walk, 2 minute step, chair sit and reach, Back scratch and 8feet up and go tests. The results are compared with the normogram in western population by the Study of Rikli & Jones.

Results: The mean age of the total population was 68.48 ±7.18. Males constituted 36.7% and females 63.3%. 31%(Chair stand), 47.5%(arm curl), 55.1%(6 minute walk test), 72.3%(2 minute step), 42.6%(Chair sit and reach), 36%(8 feet up and Go test)and 50.1%(Back scratch) of the total population performed subnormally in the tests mentioned according to the western norms although they were functionally fit to do activities of daily living. 5.6%(Chair stand), 4.2%(arm curl), 4.7%(6 minute walk test), 7.1%(2 minute step), 4.1%(Chair sit and reach), 3.9%(8 feet up and Go test)and 5.7%(Back scratch) of the total population were unable to perform the tests at all.

Conclusion: About half the population who are functionally fit were subnormal in each test when compared to western norms. Hence there is a need for developing Indian norms to assess senior citizen fitness. There is also need for creating community physiotherapy to improve fitness of the Indian elderly.

Department of Medicine, KMC, Mangalore

12. Evaluation of dietary intake and serum levels of Cyanocobalamin(Vitamin B12) in elderly subjects on Proton Pump Inhibitor (PPI) therapy: a pilot study

Rajesh M., PratibhaPeirera., Sahana M, Amritha Prakash.

Introduction: Vitamin B₁₂ is an essential nutrient that must be taken from the food, which is bound to protein.

Dietary Vitamin B₁₂ requires both gastric acid and pepsin to initiate absorption process. The vitamin B₁₂ absorption involves peptic enzymes to cleave dietary B₁₂ from dietary proteins. This is performed primarily by pepsin, which requires gastric acid to activate it from its pepsinogen precursor. Without gastric acid, vitamin B₁₂ would not be cleaved from dietary protein. It has been hypothesized that since gastric acidity is required for vitamin B₁₂ absorption, acid suppression may lead to malabsorption and ultimately vitamin B₁₂ deficiency from atrophic gastritis and achlorhydria. Vitamin B₁₂ is relatively common disorder among older adults. With an increased prevalence of atrophic gastritis in elderly individuals, the absorption of protein-bound vitamin B₁₂ is decreased. Postgastroectomy states, atrophic gastritis, pancreatic insufficiency and ileal disease are among some of the problems that may lead to vitamin B₁₂ deficiency.

Objectives: Evaluation of dietary intake of B₁₂ and effect of long term PPI therapy on serum levels of B₁₂

Methodology: A cross sectional study design is employed with an aim to include 30 elderly subjects of both genders aged above 65 years admitted to the hospital/ out patients consulting physician under geriatric care, who are on PPI therapy for a minimum period of 3/6 months. Subjects admitted to ICU and on oral/IV supplementation of B₁₂ are excluded. Dietary evaluation of B₁₂ intake will be performed using 24 hour recall of foods consumed followed by laboratory evaluation of serum B₁₂.

Result: The impact of long term use of PPI on vitamin B₁₂ status can be known. An overview of dietary intake of B₁₂ in these subjects will be obtained which along with serum B₁₂ levels may help in understanding the relation between dietary pattern and occurrence of B₁₂ deficiency in subjects on PPI.

Keywords: Proton Pump Inhibitor, Cyanocobalamin, Serum B₁₂, geriatric care

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13. A Study of prevalence of hypertension and adherence to treatment among geriatric population in rural practicing area of osmania medical college.

B. Naga Gayathri, Md Abdul Wassey

Background: The world is slowly ageing and so its population. Ageing is inevitable and irreversible. United Nations defines population above 60 years as Geriatric. In India 8% of total population is geriatric. Non-communicable

diseases (NCDs) are major contributors of morbidity and mortality in the elderly. Hypertension is responsible for 7.5 million deaths annually worldwide and these accounts for 57 million DALYs (Disability Adjusted Life Years).

Objectives:

1. To estimate the prevalence of hypertension and adherence to treatment among hypertensives in geriatric population of rural field practicing area of Osmania Medical College.

2. To study the socio demographic profile of geriatric population of rural field practicing area of Osmania Medical College.

Materials and Methods: A total of 280 elderly from a rural community were selected by systematic random sampling. Data on Socio-demographic details, prevalence of hypertension and adherence to treatment among the hypertensives was collected using a predesigned semi structured questionnaire.

Results: Prevalence of hypertension was 43.93% (123). Prevalence among males was 59.37% (57) and in females was 35.87% (66). About 28.57% (36) were current smokers, 15.87% (20) were ever smokers, 55.56% (70) were non smokers and 14.29% (18) were with history of passive smoking. 84.9% (107) were on regular medication.

Conclusion: Burden of hypertension among the elderly is high in rural areas. Strategies to detect and treat hypertension in the elderly have to be implemented early.

Keywords: DALYs, Non Communicable Diseases, Geriatric, Hypertension, Adherence to treatment.

Department of Community Medicine, Osmania Medical College, Hyderabad

14. Assessment and Need for the Provision of Geriatric Pharmaceutical Care

S.Z Inamdar¹, Apsy P.V^{2}, Shivasharanappa GB²*

Background: India has acquired the label of "an ageing nation" with 7.7% of its population being more than 60 years old. Pharmaceutical care aims to improve communication, promote compliance and concordance with treatment to achieve definite therapeutic outcomes.

Objective: The present study is an approach to assess the need and provision for geriatric pharmaceutical care.

Methodology: A prospective observational study was carried out for a period of six months. A total of 121 cases meeting the inclusion criteria who were admitted to medicine and surgical wards were reviewed and assessed using beers criteria and pharmaceutical care network Europe tool for the provision of pharmaceutical care.

Results: Out of 121, 101 (83.47%) patient's drug therapies were identified with 406 drug related problems. Number of drug related problems identified per patient is 4.01. Out of 121, 101 patients showed number of 351(86.45%) actual and 55(13.54%) potential problems. Drug related problems involved Manifest interaction 142(34.97%) followed by Potential interaction 97(23.89%), Inappropriate drug 55(13.54%), No drug prescribed but clear indication 39(9.60%), No clear indication for drug use 22(5.41%), Duration of treatment too short 17(4.18%), Adverse drug reaction 15(3.69%), Inappropriate duplication of therapeutic group 15(3.69%) and Duration of treatment too long 4(0.98%). Out of 406 drug related problems reported, 245(60.34%) were proposed and approved, 81(19.95%) were proposed but not approved and 80(19.70%) were proposed, approved but outcome was unknown. By the end of the study, the interventions resolved 57.83% of actual drug therapy problems and prevented 60.96% potential drug related problems. **Conclusion** The study reveals a high frequency of drug related problems in the study population evidencing the need of clinical pharmacist services in the promotion of safe and effective drug use and to optimize patient care through geriatric pharmaceutical care.

Key words: geriatrics, pharmaceutical care and drug related problems.

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15. An echocardiographic assessment of cardiovascular hemodynamics in patients with large pleural effusion in patients above 60 years.

Patil SP ^{*}, Mulay DV^{**}, Borkar MS (Sonavani) ^{***}, Khaire US. ^{****}

Background: The close relationship between pleural space and pericardial space and the dependence of their pressure kinetics are well known. This study evaluates the effects of increased intra pleural pressure due to pleural effusion on cardiovascular system.

Methods: Twenty patients who had massive unilateral/bilateral pleural effusion due to non-cardiac etiology above 60 years were included in the study. Therapeutic thoracocentesis was done for massive pleural effusion. The echocardiographic parameters measured before and after thoracocentesis were compared.

Results: There were 12 male, 8 female patients in study population with mean age of 66 years. Right atrial collapse

was seen in 12 patients (60%) before thoracocentesis which persisted in only one patient (5%) after thoracocentesis. Right ventricular diastolic collapse was seen 16 patients (80%) before thoracocentesis which persisted in 3 patients (15%) after thoracocentesis. IVC compressibility <50% during inspiration was seen in 10 patients (50%) before thoracocentesis and no one had IVC compressibility <50% during inspiration after thoracocentesis. (p<0.05) Mean flow velocity respiratory variations across mitral valve before thoracocentesis E- 26.80±12.46%, A- 28.52±11.50% and after thoracocentesis E-16.29±9.74%, A-17.72±8.3% (p<0.05) Across tricuspid valve mean flow velocity respiratory variations before thoracocentesis E-34.77±11.57%, A- 39.94±21% and after thoracocentesis E- 21.23±9.5%, A- 25.25±11.5% (p<0.05). Mean LVEF before and after thoracocentesis was 51.68% and 58.68 % which indicates significant improvement in LVEF after thoracocentesis. (p<0.001)

Conclusion: Large pleural effusion has potential to cause adverse impact on the cardiovascular hemodynamics, which could manifest as tamponade physiology. Altered cardiac hemodynamics could be an important contributor in the mechanism of dyspnea in patients with large pleural effusion.

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16. Medico-Legal Aspects of Geriatric Care

Tyagaraju M R¹, Gannur DG², Nuchhi UC,³ Bhuyyar C.⁴

Ageing is a natural process. In the words of Seneca; "Old age is an incurable disease", but more recently, Sir James Sterling Ross commented: "You do not heal old age, you protect it; you promote it; you extend it." Old age should be regarded as a normal, inevitable biological phenomenon. India is in a phase of demographic transition. As per the 1991 census, the population of the elderly in India was 57 million as compared with 20 million in 1951. There has been a sharp increase in the number of elderly persons between 1991 and 2001 and it has been projected that by the year 2050, the number of elderly people would rise to about 324 million.

The well-being of senior citizens is mandated in the Constitution of India under Article 41. "The state shall, within the limits of its economic capacity and development, make effective provision for securing the right to public assistance in cases of old age". The Right to Equality is guaranteed by the Constitution as a fundamental right. Social security is the concurrent responsibility of the central and state governments. It is important to understand that older patients often have multiple problems and multiple treatments and so

the risks to them and of the clinician making mistakes can be higher.

Elderly in India are entitled to certain concession and facilities which all medical professionals should be aware of.

Key words: Elderly, medico-legal, geriatric care.

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17. Study of prescription pattern and drug use in geriatric hypertensive patients in a tertiary care hospital.

Sangavi C Neeta*, Singh Shailender**, Kulkarni P G***

Background: There is a steady increase in the elderly population worldwide. Currently this age group demonstrates very high growth rates. The elderly age group also presents with peculiarities with use of medication and susceptibility to various chronic diseases. Evidence indicates high prevalence of inappropriate prescribing medicines especially in the elderly people, which can lead to increased incidence of adverse drug reactions, morbidity, mortality and cost of treatment. Therefore a simple, inexpensive and time efficient tool that can be used routinely can be very helpful to guide prescribing the prescription and reduce inappropriate prescription practice.

Objectives:

1. To study the pattern of prescription in geriatric hypertensive patients admitted in medicine wards in BRIMS, Bidar

2. To see the adherence of prescribed medicines with WHO essential medicine list.

Materials and Methods: A prospective study was undertaken, over duration of 6 months at the government hospital, Bidar. 250 patients either sex aged above 65 years admitted to medicine wards were included. Data collection was done by scrutinizing the inpatient case sheets and investigation reports.

Results: Among 250 patients that were included in the study, male preponderance was observed with 54% patients being male and rest females. The total antihypertensive drugs prescribed were 495, 32 fixed dose combinations were used. Average number of antihypertensive drug per prescription was 1.4.

Conclusion: In our study polypharmacy was observed. Most common prescribed single dose was amlodipine, calcium channel blocker.

*Post graduate student, ** Assistant professor, *** Associate Professor & I/c HOD, Bidar Institute of Medical Sciences, Bidar, Karnataka

18. Retrospective Study on drug utilization in patients with Acute Exacerbation of Bronchial Asthma in adults at tertiary teaching hospital in Bidar.

Jyothi DB*, Kulkarni GP**, Kamshette YB***

Background: Drug utilization plays a role in helping the health care system to understand, interpret and improve the drug use and continuous quality improvement. It plays an essential part of pharmacoepidemiological studies.

Objectives: 1) The purpose of this study was to evaluate the drug utilization trends in patients with acute exacerbation of bronchial asthma in a tertiary teaching hospital in Bidar.

Methods: 100 prescriptions from patients with established diagnosis of acute exacerbation of bronchial asthma were assessed from the Department of Pulmonary Medicine and the data gathered was analysed using MS Excel.

Results: Majority of the prescriptions irrespective of severity received inhalation β_2 agonist (formoterol) as a bronchodilator. Nebulization route was given for managing the acute exacerbations followed by inhalation route. Hydrocortisone was prescribed to all patients for managing acute exacerbations. Montelukast was used as an adjuvant therapy. Most of them were prescribed combination therapy. Theophylline was prescribed among all the methylxanthines. **Conclusion:** β_2 agonists Combinations and corticosteroids are the most commonly prescribed combination drugs for asthma followed by methylxanthines. The most commonly prescribed asthmatic medication in combination therapy was inhaled salbutamol with ipratropium followed by intravenous hydrocortisone and oral Montelukast. The most commonly prescribed methylxanthine was intravenous theophylline. Nebulization was preferred route to tackle the acute exacerbation of asthmatic symptoms.

Key Words: Bronchial asthma, drug utilization studies, beta-2 agonist, Corticosteroids

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19. To study the nutritional status among urban and rural elderly population in Mysore District

Sahana.M., Kalpana.T., Meghana K. N., Divyashree. S., Dr. Pratibha Peirera.

Nutritional needs change throughout life. For the elderly, these changes may be related to normal ageing processes,

medical conditions, or lifestyles. Assessment of nutritional status is essential for preventing or maintaining a chronic disease and for healing. Knowing the causes of changing nutritional needs and dietary preferences is needed to understand a patient's nutritional status. Nutrition is an important factor contributing to health and functional ability. There is definite evidence that malnutrition is more common in geriatric population.

Aim: In our study the main aim is to obtain, verify and interpret data needed to identify nutritional related problems, their causes and significance affecting the elderly and evaluate the differences in the morbidity pattern between the rural and urban geriatric population. It involves initial data collection and the subject is monitored and evaluated based on the data collected.

Method:- A pilot study design is employed with an aim to include 150 elderly subjects of both genders and both the population aged above 65 years of out patients consulting physician under geriatric care and assessing them using Subjective Global Assessment Subjective Global Assessment (SGA) is a clinical technique used for assessing the nutritional status of a subject based on past history and physical examination.

Result : Evaluating and interpreting the data by SGA in comparing the nutritional status of elderly who are well nourished, malnourished or at risk of malnutrition in urban and rural population

Keywords: SGA, Geriatric population.

Department of Nutrition and Dietetics, JSS Hospital, Mysore

20. Levofloxacin induced cutaneous rashes: Case report

S.Z Inamdar¹, Shivasharanappa G.B^{2}, Abdul Hadi², Apsy P.V², Rakshit S Patil²*

Levofloxacin, a third generation fluoroquinolone inhibit the enzyme bacterial DNA gyrase, which nicks the double stranded DNA. Levofloxacin first line indication for respiratory tract infection. Here is a case of cutaneous rash induced by the Levofloxacin in a patient treated for paraumbilical hernia in a female surgical ward, at tertiary care hospital. The patient aged 60 years developed swelling and rashes on the lateral sides of the elbow of the right hand which is suspected due to the Levofloxacin. On the first day of the treatment Levofloxacin 500 mg was given and patient presented with the rashes and the swelling. When Levofloxacin drug therapy is stopped the symptoms were reduced. The study reveals occurrences of cutaneous rashes are suspected due to Levofloxacin injection. The overcome this reaction Levofloxacin should be discontinued and

antihistamine ointment should be given for the localized skin rashes. To adverse drug reaction observed in the patient due to Levofloxacin is probable, which is assessed through Naranjo's ADR probability scale.

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21. Association Between Chronotype Sleep Pattern and Risk of Diabetic Complications

SRINIVAS B, MALDARA, BELLADA.

Introduction: Sleep is viewed as a state of energy conservation and replenishment of energy stores. The circadian system, controlled by the master circadian clock located in the suprachiasmatic nuclei of the hypothalamus, plays a major role in regulating daily rhythms of sleep/wake and various metabolic outputs, such as feeding behavior, peripheral tissue metabolism, and hormone secretions. Chronotype is the internal circadian rhythm or body clock of an individual that influences the cycle of sleep and activity in a 24-hour period. *Chronotype is partly genetic and partly due to environmental cues.* Humans spend approximately a third of their lives sleeping. Experimental and epidemiologic data have linked insufficient sleep duration, abnormal sleep timing, and poor sleep quality to insulin resistance, increased risk of obesity, and diabetes. In patients with type 2 diabetes, sleep disturbances may adversely affect glycemic control.

Aims and Objectives: To Determine The Association Between Chronotype Sleep Pattern And Risk Of Diabetic Complications.

Material and Methods: Patients with type 2 diabetes had a structured interview and completed questionnaires to collect information on demographic data, diabetes history and habitual sleep duration, quality, and timing. The **morningness-eveningness questionnaire (MEQ)**, developed by researchers James A. Horne and Olov Östberg, was used to determine the chronicity of a person. Each subject was asked a set of 19 questions as given in MEQ questionnaire and was given the corresponding points. The sum of the points of each question gives a score ranging from 16 to 86; scores of 41 and below indicate "evening types", scores of 59 and above indicate "morning types", scores between 42-58 indicate "intermediate types".

The sleep pattern was then compared with the level of glycemic control (FBS, PPBS, HbA1c) and the association of diabetes associated complications (nephropathy, retinopathy)

Results: A total of 50 patients were analysed and it was found that individuals who fit into "evening types" had a poor glycemic control and had a relatively greater incidence of diabetic complications

Conclusion: Later Chronotype is associated with poorer glycemic control and a greater incidence of diabetic complications. These results suggest that chronotype may be predictive of disease outcomes and lend further support to the role of the circadian system in metabolic regulation.

Department of Medicine, KLEU, JNMC, Belagavi.

22. Sleep apnea risk, cognitive and functional impairment: Triangular Health Problems among elderly- An exploratory study in Mysore

Savitha Rani B B, Praveen Kulkarni, Sunilkumar D, Ashok N C, Renuka M

Introduction: Advancement in medical sciences with socioeconomic improvement across the country have led to increased life expectancy among Indians, which has resulted in increased old age dependency ratio. Indian health care delivery system is more deviant towards productive age groups and has sidelined the veterans who constitute about 7-8% of our population. Morbidities among elderly are largely preventable and treatable if detected at early stages. Sleep disturbances, cognitive impairment and functional limitation are commonly neglected by elderly and often overlooked, whereas these conditions can severely impair the living status and quality of life among elderly.

Objectives:

1. To assess the prevalence of sleep apnea, cognitive impairment and functional status among elderly.
2. To assess the factors influencing the above mentioned morbidities.

Methodology: This cross sectional study was conducted in the Urban field practice area of Department of Community Medicine, JSS Medical College, Mysore for a period of three months. Details regarding Sociodemographic characteristics, sleep disturbance using STOP-BANG tool, Functional status using IADL Scale and cognitive impairment using MINICOOG tool were collected in a pretested structured survey schedule by interview technique. The relevant information was collected in a pre-designed and pre-tested proforma. Data was analysed by SPSS software 22 version. **Results:** Among 102 of Geriatric subjects included in the present study, majority were in the age group 60-69 years- 72(70.6%) and least 7(6.9%) were 80 and above. 48(49.1%) were males and 54(52.9%) were females. Majority 43(42.1%) were having Intermediate risk of sleep apnoea and 27(26.4%) were having high risk. 44 (43.2%) were found to have subclinical cognitive impairments. Functional status scores will significantly lower among subjects with sleep and cognitive disturbances compared to their normal counterparts.

Conclusion: There is a higher burden of sleep apnea, cognitive impairment among elderly which have significant influence on their functional status. Thus there is a need for evolving a strategy to include these screening procedures in the regular health check up among elderly.

Key words: Geriatrics, Functional status, Instrumental Daily living skills, Cognitive function, Dementia
JSS Medical College, Mysuru.

23. Esophageal Cancer: A five-Year Experience at Tertiary care Center of Northern India

Parveen Malhotra P

Background: Esophageal cancer (EC) is the eighth most common cancer and sixth leading cause of cancer deaths in the world, with the majority of cases occurring in developing countries. Most of the tumour of esophagus are malignant and the diagnostic symptom, dysphagia, occurs very late. The overwhelming majority of esophageal malignancies are classified as either squamous cell carcinoma (SCC) or adenocarcinoma (ADC). Worldwide, 90% of esophageal cancers are SCC and about 5% are ADC. The remaining 5% represent rare malignancies and metastases from other organs

Material and methods: We examined all pathology reports, endoscopy records, and patient files from PT BDS PGIMS Rohtak Hospital from January 2011 through 2015 to identify all patients with a histologic diagnosis of EC. During this 5 year period, 494 biopsies were taken endoscopically for suspicious carcinoma. Out of which 77 were not conclusive and 417 were identified to be positive. The positive cases were classified further for the type of EC histopathologically. We reviewed the following from the records of these patients: age at diagnosis, sex, tumor histology, and endoscopic site, clinical or medical records to identify the risk factors involved.

Results: From 417 patients, 89.6% were squamous cell carcinoma, 5.03% were adenocarcinoma. EC was more prevalent in males than females. To date, no single factor could be identified as the main cause of the excess incidence of SCC as compared to other types. Three main components emerged as important risk factors: smoking and alcohol consumption were more prevalent in patients with SCC and adenocarcinoma patients had GERD as most common risk factor. Other varieties like small cell carcinoma, signet ring adenocarcinoma, adenosquamous carcinoma, and sarcomatoid carcinoma constituted 0.2% only. Poorly differentiated carcinoma comprised 1.1%.

Conclusion: In summary, this case series describes the large number of EC patients reported to date, and it highlights the uniqueness of the EC experience in tertiary center of

northern India.

Key words: Esophageal carcinoma; esophageal adenocarcinoma; esophageal squamous cell carcinoma; epidemiology; Risk factors

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24. Sleep apnea risk, cognitive and functional impairment: Hidden Trio's among elderly- An exploratory study in Mysore

Savitha Rani B B¹, Praveen Kulkarni², Sunil Kumar D³, Renuka M⁴

Introduction: Advancement in medical sciences with socioeconomic improvement across the country have led to increased life expectancy among Indians, which has resulted in increased old age dependency ratio. Indian health care delivery system is more deviant towards productive age groups and has sidelined the veterans who constitute about 7-8% of our population. Morbidities among elderly are largely preventable and treatable if detected at early stages. Sleep disturbances, cognitive impairment and functional limitation are commonly neglected by elderly and often overlooked, whereas these conditions can severely impair the living status and quality of life among elderly.

Methodology: This cross sectional study was conducted in the Urban field practice area of Department of Community Medicine, JSS Medical College, Mysore for a period of three months. Details regarding Sociodemographic characteristics, sleep disturbance using STOP-BANG tool, Functional status using IADL Scale and cognitive impairment using MINICOG tool were collected in a pretested structured survey schedule by interview technique.

Results: Among 102 of Geriatric subjects included in the present study, majority were in the age group 60-69 years- 72(70.6%) and least 7(6.9%) were 80 and above. 48(49.1%) were males and 54(52.9%) were females. Majority 43(42.1%) were having Intermediate risk of sleep apnoea and 27(26.4%) were having high risk. 44 (43.2%) were found to have subclinical cognitive impairments. Functional status scores will significantly lower among subjects with sleep and cognitive disturbances compared to their normal counterparts.

Conclusion: There is a higher burden of sleep apnea, cognitive impairment among elderly which have significant influence on their functional status. Thus there is a need for evolving a strategy to include these screening procedures in the regular health check up among elderly.

Key words: Geriatrics, Functional status, Daily living skills, Cognitive function, Dementia

1-Post graduate student, 2&3-Assistant Professor, 4-Professor and Head of the Department. Community Medicine, JSS Medical College, Mysuru.

25. Prevalence of Dementia in Geriatric Clinic.

Gudi MS.

Introduction With growing ageing population, incidence and prevalence of dementia is also increasing globally. It is estimated that presently 36 million cases of dementia noted all over the world and expected to double every 20 years and may reach 81 million by 2040. It is the major concern for elderly community as it amounts to considerable stress to older persons as well as carers. Most elderly are much more worried about dementia than death. All these result into considerable economic burden on health care system.

Objectives:

- To find out the prevalence of Dementia in rural area (Uttarakhand)
- To plan the measures to treat and prevent Dementia.

Methods: The present study was conducted on elderly patients attending Geriatric clinic at Madhavendra Hospital / Neolife Health centre during March 2014 to April 2014. Patients were randomly selected and consent was taken. After ascertaining personal data, they were screened by paramedical health workers through a questionnaire (designed and approved by WHO as MMSE Test) Later patients were examined by on duty Medical Officer. Then all the data were compiled, summarized and analysed.

Results: During the study period, 739 patients attended Geriatric Clinic. (M 457, F 285) out of which 82 patients were randomly selected for assessment. (M 51 F 31). Out of 82 patients 12 were found to be having Dementia (14.6%) 8 patients were found to be mildly impaired, 2 patients were moderately and 2 patients were severely impaired. COPD, Hypertension and Heart Diseases (their complications), Diabetes, Arthritis, BPH, Malignancy and other disorders are the common comorbidities found in these patients.

Discussion: Prevalence of Dementia in the present study shows significant 14.6% in the patients attending Geriatric Clinic. Dementias are an important cause of morbidity that contribute to the global NCD burden. So, it should be a major health priority. Management of behavioural problems is challenging. Pharmacotherapy is associated with poor compliance and adverse side effects. More research and advanced approach to manage Dementia is needed.

Key words: Dementia, Elderly

Consultant, Neolife Foundation, Haridwar, India.

26. A Cross Sectional Study of Health Problems in The Elderly Residing in Urban Field Practice Area of S.N. Medical College, Bagalkot, Karnataka.

Dr. Gowri Shankar

Introduction: Ageing is a lifelong and inevitable process. It is a progressive change in the physical, mental and social status of individuals. The focus on ageing is not only to prolong life but also to improve the quality of life of older persons. Many current day problems of the geriatric population like hypertension, diabetes mellitus and osteoarthritis are related to nutrition and lifestyle.

Aims and Objectives: To study health problems in the elderly population.

Materials and Methods: 160 elderly individuals, 80 each from urban and urban slum of urban health training center area, S.N. Medical College, Bagalkot, Karnataka were enrolled after approval from Institutional Ethics Committee and informed consent by simple random sampling. Information about socio-demographic details and health problems were recorded on a pre tested proforma. Anthropometric measurements of height and weight and blood pressure was recorded.

Results: Majority (28.12%) were between 65-69 years of age followed by 25.63% between 60-64 years of age. Maximum number (73.13%) were females and most of them (70.08%) were widows. It was observed that 78.75% of the subjects were illiterate. Cataract was seen in 28.75% followed by arthritis in 28.13% and known hypertensives were 23.13%. Both diabetes mellitus and hypertension was observed in 10% and known diabetes mellitus in 6.25%. Body mass index >25 was observed in 32.5% in the urban and in 20% in the urban slum geriatric study population.

Conclusion: Geriatric primary health care services is the need of the hour in the community.

Associate Professor, Department of Community Medicine, S.N. Medical College, Navanagar, Bagalkot.

27. To study the association Between Glycosylated Hemoglobin and Cardiovascular Events and Mortality in Older Adults Without Diabetes Mellitus

Bhustali R, Srinivas B, Somannavar VG

Introduction: The prevalence of type 2 diabetes mellitus is increasing worldwide. As a consequence of changing lifestyles and population ageing, many people with diabetes

mellitus will be disabled or die from macro- and microvascular complications. In 2010, the American Diabetes Association recommended including glycosylated hemoglobin (HbA1c) of 6.5% or greater as a criterion for the diagnosis of diabetes mellitus. A relationship has been found between HbA1c levels below 6.5% and cardiovascular disease and mortality and incident diabetes mellitus, suggesting that, before the diagnosis of diabetes mellitus, high glucose levels leading to high HbA1c might contribute to the development of cardiovascular disease, but in the oldest adults in the general population, the association between HbA1c in the normal range and risk of cardiovascular disease and mortality remains unclear. Moreover, traditional cardiovascular risk factors, such as high cholesterol, high blood pressure, and high body mass index (BMI), do not apply to very old adults. Therefore, the present study investigated the association between HbA1c and incident cardiovascular disease and mortality in non diabetic elderly population

Aims and Objectives: To examine the association between glycosylated hemoglobin (HbA1c) and incident cardiovascular disease and mortality in individuals more than 65yrs of age without diabetes mellitus from the in patients of KLE'S Dr Prabhakar kore hospital.

Material and Methods: In patients of KLE hospital who were aged more than 65yrs and were non diabetic and who had a prior cardiovascular event were taken as subjects. Their HbA1c levels were done. HbA1c levels were categorized into three groups (<5.0% (31 mmol/mol), 5.0-5.7% (31-39 mmol/mol; reference), 5.7-6.5% (39-48 mmol/mol)). The association between HbA1c levels and the incident cardiovascular event was analysed.

Results: Out of the 50 patients studied it was found that HbA1c levels were on the higher range in patients who had a cardiovascular event.

Conclusion: Glycated hemoglobin values reflect the 2-to-3-month average endogenous exposure to glucose, including postprandial spikes in the blood glucose level, and have low intraindividual variability, particularly in persons without diabetes. These characteristics may contribute to the superiority of glycated hemoglobin over fasting glucose for long-term macrovascular risk stratification. Glycated hemoglobin values in the normal range can identify persons at increased risk for coronary heart disease, stroke, and death before the diagnosis of diabetes, indicating that Glycated hemoglobin is a useful marker of cardiovascular risk and death from any cause

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28. Oropharyngeal Lumen in Geriatric Age Group

*Rahul Reddy, *Sravankumar*, Vijayachandra P*, Prabhakar Rao P.v***

Background: The life expectancy is going up due to better living conditions. Thus the population of aged people is on rise. At the same time age related morbidities are also on upsurge, due to architectural changes over and above the lifestyle. This summons for a thorough clinical examination. One among that is measuring the OROPHARYNGEAL LUMEN (OPL). This is because smaller the oropharyngeal lumen, more are the related morbidities

Aim: To assess the OPL in geriatric patients with history of snoring and associated co-morbidities.

Inclusion Criteria: 1) age above 60 years 2) with/without co-morbid conditions. 3) with/without risk habits.

Study: Design: Observatory Study. **Place:** Mnr Hospital. **Period:** 1 month.

Method & Materials: A study was conducted on 85 geriatric people attending MNR pulmonology department. A detailed history of previous medical conditions, high risk habits, H/O of snoring, were taken and physical examination was done. OPL was assessed for all the people and graded using Mallampati score.

Results: 85 people aged above 60 years were included in this study, out of which males were 38(45%), females were 47(55%). Among 85, 17.64% had narrow lumen while 55.29% had severe narrow lumen. Around 20% are associated with co-morbid conditions while 58.82% had h/o snoring.

Conclusion: There is a decrease oropharyngeal lumen (73%), associated with co-morbid conditions in majority of elderly people. This may be due to the atrophy, laxity of the muscles and loss of teeth. Hence a routine assessment of OPL in elderly people is mandatory, correlating with the co morbidities

*PG students, **Prof Ulmonology, MNR Medical College Hospital, Sangareddy, Telengana

29. Impact of Otago Exercise Intervention on Risk of Falls in Elderly In Rural Mysore District

Prashanth.V.M.

Background: A fall can be defined as an event when a person unintentionally comes on the floor or at a lower level than before. There is a decrease in muscle strength, balance and mobility with ageing, predisposing elders to the risk of falls and its associated complications. Hence, prevention of falls is of major importance because they lead to considerable mortality, morbidity and suffering for older people and their families. Otago exercise intervention is a set of exercises which includes all the components for improving balance, strength and functional capacity of elderly subjects.

Selection criteria: Community dwelling people of rural Mysore district above 60 years, who scored less than 67%

on the Activity Specific Balance Confidence Scale (ABC) were included for the study.

Results and Conclusions: Thirty six participants completed the study duration of six months. This research showed that Otago exercise is effective in reducing the risk of falls in the rural elderly. There was also a significant improvement in and functional capacity of the participants ($p < 0.05$). Hence, Otago exercise intervention is a feasible programme that can be implemented in the community in rural India.

Lecturer, JSS College of Physiotherapy, Mysuru

30. BMI Significance in Elderly People

Sunil Dath Soda*, SK Mohd Salman*, Javed S.A.RAFI**, P.V.Prabhakar Rao***

Background: In Indian geriatric population 50% have co morbid chronic illness. The current study was conducted in MNR Medical College Hospital, a rural medical institute in newly formed Telengana state. Geriatric subjects were scrutinized for BMI variation and its link to co morbid conditions and the nutritional status.

Aim: To assess the BMI in the geriatric people presenting to MNR hospital with their comorbidity and nutritional status. **Inclusion Criteria:** Age above 60 years male and female With or without comorbid condition With or without risk habits **Exclusion criteria** 1.uncooperative individuals 2. Persons having severe deformities

Study Design: It is an observational study

Material and Methods: A study was conducted on the subjects with the above inclusion criteria. A detailed history of co morbid condition was taken and general physical examination was done. Height and weight were assessed and the BMI was calculated. **Results:** Males-35(mean age-66.5Yrs), Females-17(mean age-65.9Yrs). Alcoholics-10(20%), Hypertension-30(64%), DM20 (40%), HTN+DM15 (30%), OBESE 5(10%)-Hypothyroid Low BMI-8(15%), High BMI -6 (12%), Average-38(73%).

Conclusion: Low BMI (16%) existing in the current geriatric subjects in MNR hospital is due to the already existing co morbidities and poor nutrition. High BMI ratio (12%) is due to the coexisting hyperlipidemia and hormonal disorders. European and other developed countries seem to be showing high percentile of increased BMI due to the predominant nutritional status and less co morbidity. Majority have average BMI(66%). This short and small study shows that average of the sample have normal BMI. The nutritional status and the age related hum oral changes tend to influence the morbidities

Post graduates, **Asst. Prof, *Prof –Dept of Pulmonology, MNR Medical College, Sangareddy*

31. Asthma-COPD in Elderly

Archana. A, Sandeep Kumar. B**, Prabhakar Rao P.V****

Introduction: Elderly patients may complain symptoms of asthma or COPD, sometimes they may present with overlap airway obstructive symptoms. This overlap is a common clinical entity that is encountered. It is difficult to distinguish this overlap clinically. A short survey is done in elderly patients based only on symptom score like breathlessness, cough and by peak flow rates.

Aim And Objectives: To assess pulmonary function in elderly admitted in MNR Hospital for various respiratory and non-respiratory complaints with PEFr. **Category 1:** Asymptomatic elderly patients as far as respiratory system is concerned. **Category 2:** subjects with new onset of asthma or COPD. **Category 3:** subjects with previous asthma & current overlap obstructive airways. **Category 4:** subjects with previous COPD & current overlap asthma symptoms.

Methods & Material: All admitted geriatric patients of age > 55 years at MNR Medical College & Hospital subjected to Peak Expiratory Flow Meter,

Results: We assessed peak flow rates in 80 geriatric patients. Among them 20 subjects fall in category 1 with peak flow rates of 300-350 (most of these subjects are in 55 to 60 years' age group), 35 subjects fall in category 2 with peak flow rates of 250-300; 30 subjects fall in category 3 with peak flow rates of 200-250; 15 patients fall in category 4 with peak flow rates of 180-230.

Conclusion: This brief short hospital based study demonstrated decline of peak flow rates in four categories with variable range of flow rates. It leads to a conclusion that community based survey is required to affirm the findings. There is in general decline in PEFr according to age. We can attempt to differentiate Asthma-COPD overlap, depending on the symptoms and PEFr. This warrants community based survey.

Key words –Asthma, COPD, Elderly.

** & ** POST GRADUATES, *** Professor, Department of Pulmonology Department of Pulmonary Medicine, MNR Medical College & Hospital, Sangareddy, Telangana*

32. Analysis of Prescription of Elderly visiting Geriatric Clinic

Jayanthi M K, Divya reddy*

Objective: The present study was undertaken to study prescribing pattern of various drugs in elderly patients &

also to evaluate inappropriate prescribing & polypharmacy with the help of Beers criteria.

Methods - A retrospective study on rational drug prescribing patterns in geriatric patient was carried out using prescriptions issued to the geriatric patients, 65 years and above, attending the outpatient department.

Results - Of the 150 prescriptions consecutively selected, Anti diabetics (100, 66.6%) were the most commonly prescribed medicines with metformin & sulphonylureas being the most prescribed anti-diabetic. 50% of medicines were prescribed from the WHO essential drug list. 10(6.6%) prescriptions had one or more potentially inappropriate medicines from Beer's criteria and around 20% of polypharmacy was seen.

Conclusion - The drug prescribing pattern among the elderly is still suboptimal. Appropriate interventions are needed for both health care providers and patients.

Keywords: Beers criteria, Geriatric patient, polypharmacy, Essential drug list

**Professor & HOD, Department of Pharmacology, JSS Medical College, Mysore*

33. Optimization of resistance training frequency for people with chronic obstructive pulmonary disease in home based approach

Aleesha Cherian.

Objective: Primary objective of the study was to find out the optimum frequency of resistance training In COPD patients

Methods: An observational study design to find out the optimum resistance training frequency for COPD patients in community setting mainly the participants home. Participants were assigned in to 3 groups using block randomization. In that

1st group- 4 aerobic session + 3 resistance exercise session; 2nd group- 5 aerobic session + 2 resistance exercise session; 3rd group- 6 aerobic session + 1 resistance exercise session

Follow up evaluation conducted once in 3 weeks after initial allocation by therapist.

Participants were COPD patients with grade 3 and 4 COPD. Of 22 allocated 8 participants in group I, 7 participants in group II, 7 participants in group III were successfully followed up.

Results: Primary outcome measure were IRM and SGRQ-C. *PG in physiotherapy, JSS Medical College, Mysuru.*

34. Migration and its Ramifications on Rural Elderly

Prof. Jayashree S and Ms. Ashvini Patil***

Migration acts as a barometer of changing socio-economic and political conditions at regional, national and international levels. Migration from one area to another in search of improved livelihoods is a key feature of human history (Srivastava and Sasikumar, 2003). Of late, there is a widespread occurrence of temporary and seasonal migration for employment purposes in India. It is one of the most important livelihood strategies adopted by the poorest people of the country. The present study was conducted on one such seasonal migration in a border area of Karnataka-Maharashtra. The study focused on implications of migration of youngsters on elderly people.

Objectives: 1. To know the socio-economic profile of the elderly.

2. To understand the consequences of migration of young breadwinners on elderly.

Major findings: The present study focused on the migration and its effects on the elderly. The results show that majority of elderly were out of the work force, partially or totally dependent solely on remittances of young migrants. Migration of the youngsters has affected the health of the elderly. They suffer from multiple health problems. Negligence by their family members is one of the main factors for deteriorating health conditions of the elderly. They also face financial problems; have become lonely without their children and family. They are overburdened by the family responsibilities at this age. Looking after household chores and grandchildren is a herculean task for elderly. The feeling of insecurity has affected the health of elderly.

Empty nest syndrome is evident among elderly. Majority of the respondents are unaware of the policies and programs which are specific to the older persons like widow pensions, old age pensions, and other benefits available to them.

* Professor, **Research scholar Department of Sociology, Karnatak University, Dharwad 580003

35. Morbidity Profile of Elderly in Selected Indian Villages

**Prof. Jayashree. S*

Ageing is the result of enhancement of longevity. Enhanced longevity is determined by many pertinent factors. Morbidity is one of the determinants of longevity and wellbeing of elderly. Morbidity profile of rural elderly is the issue of the present study.

Examine the morbidity profile and to understand the determinants of morbidity are the major objectives of the study.

Material and methods: By following simple random sampling method, data from 18 villages have been collected and analyzed.

Results: Female elderly respondents were more in the sample and more number of widows found in the sample. Joint pains, loss of memory, hypertension, and eye problems were the common disease found among the respondents. Health and income of the respondents are positively correlated. More numbers of women suffer from hypertension and diabetics. Rural elderly suffer from Alzheimer diseases; however they were not aware of the disease. They feel that it is common in old age and trivialize the problem. There was no co-relation between health care and social network. Nearly 84 percent of respondents were hospitalized for one or other health reasons. Preventive and precautionary measures were not popular and adhered by the respondents. Allopathic is preferred type of medicine of the respondents. More number of respondents preferred to consult private doctors. Carelessness of government doctors in the hospital was the main reasons for not visiting government hospitals. There was no significant relation between the income and types of hospital visited by the respondents. However, interestingly, respondents with no income visit private hospitals. Majority male respondents were addicted to tobacco smoking and alcohol.

**Professor of sociology, Karnatak University, Dharwad*

36. A Case Report of Hemophagocytic Lymphohistiocytosis (HLH)

Varsha Male Jayar, Duttatrai More**, AtulRai*****

Hemophagocytic lymphohistiocytosis (HLH), is an uncommon, life-threatening hyper inflammatory syndrome caused by severe hypercytokinemia with excessive activation of lymphocytes and macrophages due to a highly stimulated but ineffective immune process. In both its congenital (primary) and adult (secondary) forms, it is most often characterized by fevers, hepatomegaly or splenomegaly, and bi- or trilineage cytopenias. In addition, elevated liver enzymes, hyper-ferritinemia, hypertriglyceridemia, and hypofibrinogenemia are commonly seen in HLH patients. A high index of suspicion is necessary for early diagnosis. Although HLH is well described in the pediatric population, less is known about the appropriate work-up and treatment in adults.

We report a case of Hemophagocytic Lymphohistiocytosis in a 69-year-old man presenting with bicytopenia, leukopenia and loss of weight.

Keywords: HLH