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EXTRACTING THE PREVALENCE OF FRAILTY AMONG THE GERIATRIC POPULATION RESIDING IN AURANGABAD DISTRICT – A CROSS-SECTIONAL STUDY.

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ABSTRACT

BACHGROUND: In India, there are roughly 10.4 crore senior people, with rural areas housing 65% of them. Rural locations have limited access to healthcare. Frailty is characterised by a gradual loss of reserve and capacity for adaptation along with a general decline in health.Accessibility to healthcare is limited in rural areas. Primary care physicians deal with a fairly large number of patients from the geriatric age group. Our study's goal was to find out how common frailty was among the elderly population in the Aurangabad area.

METHODS:104 participants in an observational study at a geriatric care centre in the Aurangabad area of Maharashtra, India, were chosen using convenient sampling, and the prevalence of the condition was determined using the Frailty Aging Index.

RESULT: Prevalence of frailty in non frail was 22.11%(1-2 indicates no frailty) , in pre-frail it was 32.69% (3-4 indicates frailty risk) and frail it was 45.19% (≥7 indicates frailty).

CONCLUSION: The elderly population appears frailty. Their health will improve as a result of health programs that target the prevention, early identification, and treatment of morbidities and frailty.

KEY-WORDS: Prevalence, elderly, old age homes, Frailty Aging Index scale, Aurangabad.

INTRODUCTION

Frailty has become a very important concept among clinicians and researchers, although no clear definition is currently available, the Various concepts of frailty have been consistency associated with

morbidity, disability and mortality they meet 3 or more of the following criteria Weight loss, exhaustion, weak grip strength, low physical activity & slow walking speed.[1] Basically the frailty symbol is the result of multiple substances dysregulation including inflammation, hormonal dysfunction, alteration in nutrition and sarcopenia, weight loss in frailty criteria is congruent with the conceptualization of frailty as a wasting disorder, with sarcopenias a major feature.[2] The frailty phenotype is taken into account present if three or more of the indications are present; the presence of 1 or two indicates a prefrail state. Frailty may be complex pathophysiological phenomenon which will impact a big proportion of adults over the age of 50 and contributes to the danger of several adverse health outcomes .[3] Frailty is a distinct geriatric syndrome with phonotypical representation and etiology of multisystem dysregulation .[4] Frail older adults are at increased risk of disability, morbidity, and mortality compared with non-frail older adults. The population ageing in most Western countries leads to a larger number of frail older people. These frail people are at an increased risk of negative health outcomes, such as functional decline, falls and mortality.[5] there are numerous methods for determining whether an elderly person is frail. Researchers most often use Fried and colleagues' description of the frailty phenotype the increase in the elderly population is causing changes and challenges that demand a comprehensive public health response.[6] the fragility of the elderly is one of their distinctive traits. Many tools in the form of frailty assessment scales are helping to solve today's issues with frailty identification. This systematic review identifies the frailty assessment scales used for the elderly and determines how well-suited they are for primary care in Slovenia and globally.[7] Quantitative studies (mainly cross-sectional surveys or cohort studies) prevailed among the remaining 22 articles. One study had a qualitative design (Delphi method). Frailty assessment scales for the elderly were the primary outcome measures seen in all of the studies, most of which were tested on an elderly sample.

METHODOLOGY:

An approval for the study was obtained from the institutional ethical committee. An observational study was conducted in the geriatric care centers in Aurangabad district .Sample was achieved by purposive sampling method. A total number of subjects 104 were included in study. All the subjects were screened for inclusion criteria i.e. both males and females of age above 60 years. Subjects excluded were those having recent fractures, Mild cognitive impairments, recent fractures of upper limb and lower limb, recent heart surgeries, Angina pectoralis or, myocardial infarction. Prior to the study, written consent was given to the subjects. Data was collected using frailty aging index scale.

Outcome measures: Frailty aging index scale:

Frailty aging index is developed to assess for frailty risk in older adults using various domains well defined fried phenotype criteria out of that we have observed that in rural population not only 5 but the various factors which indicates frailty .We have done the study of some patient using this scale we found that it can be more effective in the rural population.

Sr. No	Questions	Yes/No
1	Have you experienced weight last past month?	
2	Have you experienced decrease in physical activity since past month?	
3	Do you think your gait speed has been decreased?	
4	Do you feel exhausted during your ADLs?	
5	Do you feel weakness while doing normal household work?	
6	Are you using any assistance device?	
7	Do you have any fear & loss of balance while walking?	
8	Do you have fear of fall while walking?	
9	Since past few days do you have any issues remembering the things?	
10	Do you think you have reduced your social interaction?	
11	Do you need help while transferring yourself from one place to another?	
12	Are financially dependent on someone?	
13	Do you participating outdoor activities?	
14	Are you taking any medications?	
15	Do you have pain during activities?	

INTERPRETATION:
This scale was developed to assess for frailty risk in older adults using various domains. Scale is a 15-item assessment questionnaire with scores ranging from 0-15. A score of 2 indicates no frailty; a score of 3-4 indicates frailty risk; and a score of 7 or greater indicates frailty.

SCORING: A score of 1-2 indicates no frailty
A score of 3-4 indicates frailty risk
A score of ≥7 greater indicates frailty

RESULT:

Table 1: Gender distribution of the geriatric population in old-age home at Aurangabad district

Gender	Frequency	Percentage
Male	49	47.12
Female	55	52.88
Total	104	100

Table 1: Show that there were 49(47.12%) male subjects and 55(52.88%) female subjects in old-age home at Aurangabad district.

Table 2: Age group wise distribution of the geriatric population in old-age home at Aurangabad district.

Age groups	Frequency	Percentage
60 To 70	35	33.65
70 to 80	69	66.34
Total	104	100

There were 35(33.65%) subjects between 60-70 years and 69(66.34%) subjects between 70-80 years of age in old-age home at Aurangabad district.

Table 3: frailty aging index scale wise distribution of the geriatric population in old-age home at Aurangabad district.

frailty aging index	Frequency	Percentage
Frail	47	45.19
Prefrail	34	32.69
Non frail	23	22.11
Total	104	100

According to frailty aging index scale, 47(45.19%) geriatric population had frail, 34(32.69%) had Pre-frail, 23(22.11%) had non frail.

Table 4: Association between gender and frailty aging index scale of the geriatric population in old-age home at Aurangabad district.

Frailty aging index scale									Chi square statistic	P value
Gender	Frail		Prefrail		Non frail		Total		11.0448.	.003996
	F	%	F	%	F	%	F	%		
Female	28	50.90	20	36.36	7	12.72	55	52.88		
Male	19	38.77	14	28.57	16	32.65	49	47.12		
Total	47	45.19	34	32.69	23	22.11	104	100		

The chi-square statistic is 11.0448. The p-value is .003996. The result is significant at $p < 05$.

DISCUSSION:

According to the frailty aging index scale ,47(45.19%) geriatric population was frail there were 19(38.77) male and 28 (50.90) female population ,34(32.69%) was Pre-frail there were 14(28.57 %)male and 20 (36.36 %)female population ,23(22.11%) had non frail 16(32.65)male and 07(12.72)female population P value .003996.

The purpose of this study was to find out the Prevalence of frailty among the geriatric population residing in Aurangabad district. The Frailty Index was able to identify a greater number of people who were pre-frail and frail, and it demonstrated metrics and agreement comparable to findings of earlier studies. Table no 1 shows higher number of frail female population some studies shows that after menopause there are so many Physiological changes in women lack of Physical activity leads to frail syndrome. Frailty aging index scale helps us to identify Frailty Status in Elder Population not only common factors are responsible but other factors like. Health, Financial Status, Balance,Weight Loss ,Dependency /Assistance, Fatigue , Weakness ,Memory ,Physical Activity, Falls, Medications ,Cognition , ADL's (Activities Of Daily Living) ,Gait ,Transport ,Social Interaction/Social Network ,Pain , Co morbidities. Are responsible for frailty?

CONCLUSION: The elderly population appears frailty. Their health will improve as a result of health programs that target the prevention, early identification, and treatment of morbidities and frailty.

Clinical Implication:

- The presence various frailty indicators was different for the clinical because of age, gender, other factors.
- The study show a high prevalence of frail elderly gives an indication of the various needs for other disciplines within the framework of the early care for frail elderly people.
- As frailty indication we can start with early diagnosis of frailty stage also we can start with early intervention program in prefrail stage to avoid disability in future in elderly population.

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