

Breathlessness in Rural Elderly

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Abstract

Breathlessness is a common disability found in older people. As Indian data regarding the subject is lacking, we performed this small clinical study. A total of 540 elderly patients with main complaints of breathlessness coming to Community Health Centre, Arazi Lines, Varanasi were clinically evaluated and relevant investigations were carried out.

Males were 310 (57.41%) and females were 230 (42.59%). Cardiac failure (37.96%) was the commonest cause of breathlessness. Of the respiratory causes bronchial asthma (25%) was the commonest followed by chronic bronchitis (17.96%), cor pulmonale (15.94%), pulmonary tuberculosis (2.03%) and pneumonia (1.11%). Biventricular heart failure (60%) was more frequent than right (21.95%) or left (18.05%) heart failure alone. Our study shows that heart failure is a common cause of breathlessness in Indian elderly. Large studies are needed to confirm if Indian geriatric population is more vulnerable to cardiac failure and IHD.

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Introduction

Dyspnoea or breathlessness is the subjective sensation of difficulty in breathing. Normally a person becomes aware of breathlessness when the ventilatory rate is doubled. When it is tripled or quadrupled, it becomes distressing¹. Acute dyspnoea is a highly distressing situation and affected people often fear death by suffocation. Due to diminished respiratory reserve and increased work of breathing in diseased state, a given ventilatory rate becomes more uncomfortable.

Breathlessness is one of the commonest disability found in older people. In a survey, breathlessness after any effort was present in 29% of older persons between the ages of 65 to 75 years and it further rose to 35% in those above the age of 75 years¹. In a population based study done by Boezen et al breathlessness was observed in 24 % of elderly population². Ganesh reported breathlessness as a commonest presenting complaint among elderly patient admitted to casualty wards³. Generally older people complain of dyspnoea when it is of acute onset. However, they hesitate in complaining of chronic dyspnoea because most of them wrongly accept it as an inevitable consequence of ageing⁴. Most of them complain of poor mobility and poor exercise tolerance and in these instances, a direct

leading question regarding breathlessness on exertion is mandatory.

Indian data regarding breathlessness in elderly and population based study are lacking. There are no data on respiratory parameters, different etiologies and disease patterns of our elderly with breathlessness, hence we performed this small clinical study. A large well conducted study regarding the subject is need of the hour.

Methods

This study was undertaken at Community Health Centre (CHC) Arazi Lines, which is a 30 bedded rural hospital of Varanasi district, situated 25 km. from Varanasi city. All the elderly patients with complaints of breathlessness attending CHC between July 98 to June 2003 were studied. Detailed clinical history and examinations were performed by a senior physician. Routine investigations like TLC, DLC, ESR, Hb%, Peripheral Blood Film and complete urine examination were done in the laboratory of the hospital. Chest X-ray was reported by radiologist and ECG was evaluated by the physician.

Observations

This study enrolled 540 consecutive elderly patient of breathlessness attending CHC, Arazi Lines, Varanasi between July 98 to June 2003. Inclusion criteria were age 60 years and above and presence of breathlessness.

There were 310 (57.41%) males and 230 (42.59%) females. (Table 1) The percentage of females increased with increasing age. History of smoking was present in 241(77.74%) males and 88(38.26%) females.

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Table 1: Age & Sex Distribution of the cases (N= 540)

Age Group (In Years)	Male		Female		Total
	No.	%	No.	%	
60-70	190	65.52	100	34.48	290
71-80	94	51.65	88	48.35	182
80+	26	38.24	42	61.76	68
Total	310	57.41	230	42.59	540

Cardiac failure (37.96%) was the commonest cause of breathlessness in elderly patients. Commonest respiratory cause was bronchial asthma (25%) followed by chronic bronchitis (17.96%), cor pulmonale (15.94%), pulmonary tuberculosis (2.03%) and pneumonia (1.11%). Cardiac failure and cor pulmonale together constituted more than half (53.88%) of the cases of breathlessness.

Among 205 cases of cardiac failure, combined right and left heart failure [n=123(60%)] was more frequent than either right [n=45 (21.95%)] or left heart failure [n=37 (18.05%)] alone. Hypertensive heart disease was observed in 97 (47.32%) patients and was the commonest cause of cardiac failure followed by ischaemic heart disease [n=84 (40.97%)] and rheumatic heart disease [n=24 (11.71%)].

One striking observation was that most of the patients of cardiac failure were not diagnosed earlier. Many of them were on corticosteroids and salbutamol with an erroneous diagnosis as bronchial asthma or chronic obstructive airway disease.

Discussion

With ageing, gradual anatomical and physiological changes occur in a number of systems of our body which produces decrease in functional reserve of many organs like heart, lungs, kidneys, endocrine glands etc. These age associated changes become the nidus for developing into pathological disorders⁵. Age related anatomical and physiological changes in respiratory system and cardiac system predispose to breathlessness in older people. These physiological changes are of less clinical significance when the person is at rest but may become important when he is stressed as with exercise, diseases or drug administration. Overemphasis on physiological decline may lead to attitudes of nihilism among patients and health professionals. Thus, treatable diseases may be missed by being simply ascribed to old age. In clinical geriatric medicine, the major causes of morbidity and

mortality are pathological changes rather than decaying physiology⁶.

Our study documents that cardiac failure is the commonest cause of breathlessness in Indian elderly. In Netherlands, 20% elderly subjects of breathlessness were having cardiac diseases². It needs to be seen why our population of elderly had a higher incidence of heart failure. It is likely that hypertension was being missed as majority of practitioners in rural areas are not conversant with the latest guidelines of JNC VII. Hypertension was the second commonest disease after arthritis and was observed in 47.66% of rural elderly patients by Singh et al⁷. The highest percentage of our heart failure patients were hypertensive. Singh et al also reported hypertensive heart disease as the commonest cause of cardiac failure in elderly⁸. Furthermore, many were on corticosteroids which may have contributed to secondary hypertension and as its consequence heart failure. Education of the practitioners to make a proper diagnosis of the cause of breathlessness before embarking on symptomatic and sometimes wrong treatment is important. We also need large multicentric studies with active involvement of medical institutions in collaboration with the rural centres to look at the risk factors, drug prescription patterns and disease presentations in the elderly.

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