



REVIEW ARTICLE

A NARRATIVE REVIEW ON GERIATRIC UNDERNUTRITION AND HOMOEOPATHIC APPROACH

Sunil, Jyothi Vijayakumar

¹PG Scholar, Department of Practice of Medicine ²Professor A.M. Shaikh Homoeopathic Medical College, Hospital and P.G. Research Centre, Nehru Nagar, Belagavi-590010, Karnataka.

Abstract

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Key Word- Geriatric, Undernutrition, Homoeopathy, Mini nutritional assessment scale.

Corresponding Author:- Sunil, PG Scholar, Department of Practice of Medicine, A.M. Shaikh Homoeopathic Medical College, Hospital and P.G. Research Centre, Nehru Nagar, Belagavi-590010, Karnataka

Undernutrition is defined as a state that results from a lack of intake or uptake which can be caused by disease or advanced ageing alone or in combination is called as undernutrition. It ranks as one of the major problems of old age which suggest that elderly people do not have adequate nutrition.

Undernutrition in elderly persons is one of the most common problems which is due to ageing and underlying various diseases characterized by generalized weakness of whole body, loss of skin tone, muscle bulk, diminished tendon reflexes and loss of subcutaneous fat. Homoeopathic literature has mentioned about effectiveness of Homoeopathic medicines in the treatment of geriatric undernutrition.

INTRODUCTION

Ageing is a global phenomenon and presents many challenges to the society

and individuals. It is thereby essential that the health care system prepares itself to the growing health needs of the elderly in an

optimal and comprehensive manner¹. Elderly people are vulnerable to malnutrition owing to inappropriate dietary intake, inadequate access to food, poor economic status, social deprivation and depression. The elderly often has multiple comorbidities that contribute to overall nutritional compromise. Malnutrition can be labelled as modifiable and therefore, early identification of malnutrition has become a necessity in the present scenario. Diagnosis and treatment at the earliest can lead to prevention of various morbidities among the geriatric population².

History:

In 1968 WHO Monograph on nutrition–infection interactions together with Carl Taylor and John Gordon. During the decade of 1950s the knowledge about the nutrition and undernutrition was not known fully. In the year 1999-2000 the role of micronutrients and their deficiencies are widely recognized as one of the causes for infection which leads to undernutrition³.

Definition:

Above 65 years of age is considered as geriatrics^{4,5}

Under nutrition is defined as a state that results from a lack of intake or uptake which can be caused by disease or advanced ageing alone or in combination is called as undernutrition⁶.

It ranks as one of the major problems of old age which suggest that elderly people do not have adequate nutrition⁷.

PREVALENCE

The World Health Organization (WHO) estimates that the total number of older or elderly people (≥ 60 years) worldwide would cross the figure of 1.2 billion by 2025, including around 840 million people from low income countries⁸. Studies around the world showed prevalence of malnutrition among elderly ranging from 13% to 54%⁸.

In India there was 6.8% of total elderly population and by 2011 it increased to 8.6%. It is expected to cross 19% by 2050; in Karnataka it will reach 7.7%⁹.

The study conducted by *Patil DJ et al.* reported that undernutrition in elderly population using Mini nutritional assessment tool in Belagavi Karnataka was 23.5%. There was a statistically significant association found between advancing age and low MNA score⁹.

ETIOLOGY:

1. Persistent regurgitation or vomiting.
2. Anorexia
3. Malabsorption
4. Maldigestion
5. Impaired energy storage
6. Disability
7. Improper food intake
8. Social isolation

9. Chronic medication¹⁰

PATHOPHYSIOLOGY:

The biology of ageing process is the decline of physiological function and metabolism their effect gradually changes in the nutritional state which leading to change in function of different organs¹¹, advance age is associated with reduced adaptive and regenerative capacity which leads for undernutrition. Protein catabolism and micronutrients deficiency have been prominently linked to impairment of immune function¹¹.

CLINICAL FEATURES:

1. Weight loss
2. Muscle wasting
3. Loss of subcutaneous fat
4. Diminished tendon jerks
5. Infection
6. Feeling cold
7. Loss of skin tone
8. Generalized weakness¹⁰

DIAGNOSIS- Undernutrition is diagnosed based upon:

1. Clinical signs and symptoms with complete history taking.
2. General physical examination.
3. Mini Nutritional Assessment Scale.

MINI NUTRITIONAL ASSESSMENT SCALE:

The Mini Nutritional Assessment (MNA) is a screening tool to identify elderly persons who are Undernourished or at risk of undernutrition is the most widely used

and validated screening tool. It is a very useful tool for comprehensive geriatric assessment. It comprises of 18 items based on the following components: anthropometric measurements (body mass index, midarm and calf circumferences), dietary questionnaire, global assessment and self-assessment of health and nutrition. It has a 96% sensitivity and 98% specificity. The tool distinguishes patients by their normal nutritional status (score 24-30), risk of undernutrition (score 17–23.5) and undernutrition (score < 17)²

HOMOEOPATHIC APPROCH

Dr Hahnemann has divided the diseases based on the causation. § 72 define that the chronic disease will begin with small, often imperceptible beginnings, dynamically derange the living organism, each in its own peculiar manner, and because it gradually deviates from the healthy condition, in such a way that the automatic life energy, called vital force to preserve health¹².

Dr M.L Dhawale mentioned in his Principles and Practice of Homoeopathy under the chapter Susceptibility that "normal susceptibility leads to a state of good health characterized by good nutrition and a healthy outlook on life. On the other hand, abnormal susceptibility affects them in the first instance and interferes with adaption, thereby leading to the disease's development. Poor nutrition

leads to susceptibility to infectious diseases, immunological dysfunction and metabolic disorders¹².

Dr. Kent highlights in the chapter classification of diseases i.e., like the congenital debility and marasmus or any disease of a chronic character, will carry off the little ones with the underlying cause for Undernutrition.¹²

Dr. H.A Robert says in the chapter of classification of diseases, He clearly defined that about deficiency disorders, aroused due to lack of certain elements in our system, or the inability to assimilate nutrients from foods, it is a common denominator of almost all so-called Psoric

conditions, He further emphasized that Psora causes all nutritional disorders¹².

As far as Homoeopathic therapeutics is concerned, Kali carb, Lycopodium, Pulsatilla nigricans, Silicea, Sepia, Sulphur, Iodum etc. are the remedies indicated for undernutrition in geriatrics as highlighted by Dr Samuel Lilienthal in his book “Homoeopathic therapeutics”¹³

And also, Dr A.W Woodward has mentioned about Ferrum metallicum, Calcarea carbonicum, Silicea, Iodum etc. as constitutional homoeopathic therapeutics for geriatric undernutrition in his book “Constitutional Therapeutics”¹⁴

Mini Nutritional Assessment MNA®
Nestlé Nutrition Institute

Last name: _____ First name: _____
Sex: _____ Age: _____ Weight, kg: _____ Height, cm: _____ Date: _____

Complete the screen by filling in the boxes with the appropriate numbers. Add the numbers for the screen. If score is 11 or less, continue with the assessment to gain a Malnutrition Indicator Score.

Screening

A. Has food intake declined over the past 3 months due to loss of appetite, digestive problems, chewing or swallowing difficulties?
0 = severe decrease in food intake
1 = moderate decrease in food intake
2 = no decrease in food intake

B. Weight loss during the last 3 months
0 = weight loss greater than 3kg (6.6lbs)
1 = does not know
2 = weight loss between 1 and 3kg (2.2 and 6.6 lbs)
3 = no weight loss

C. Mobility
0 = bed or chair bound
1 = able to get out of bed / chair but does not go out
2 = goes out

D. Has suffered psychological stress or acute disease in the past 3 months?
0 = yes
1 = no

E. Neuropsychological problems
0 = severe dementia or depression
1 = mild dementia
2 = no psychological problems

F. Body Mass Index (BMI) = weight in kg / (height in m)²
0 = BMI less than 19
1 = BMI 19 to less than 21
2 = BMI 21 to less than 23
3 = BMI 23 or greater

Screening score (subtotal max. 14 points)
12-14 points: Normal nutritional status
8-11 points: At risk of malnutrition
0-7 points: Malnourished
For a more in-depth assessment, continue with questions G-R

Assessment

G. Lives independently (not in nursing home or hospital)
1 = yes
0 = no

H. Takes more than 3 prescription drugs per day
0 = yes
1 = no

I. Pressure sores or skin ulcers
0 = yes
1 = no

J. How many full meals does the patient eat daily?
0 = 1 meal
1 = 2 meals
2 = 3 meals

K. Selected consumption markers for protein intake
• At least one serving of dairy products (milk, cheese, yogurt) per day: yes no
• Two or more servings of legumes or eggs per week: yes no
• Meat, fish or poultry every day: yes no
0 0 = if over 1 year
0 0 = if 2 years
1 0 = if 3 years

L. Consumes two or more servings of fruit or vegetables per day?
0 = no
1 = yes

M. How much fluid (water, juice, coffee, tea, milk...) is consumed per day?
0 0 = less than 3 cups
0 1 = 3 to 5 cups
1 0 = more than 5 cups

N. Mode of feeding
0 = unable to eat without assistance
1 = self-fed with some difficulty
2 = self-fed without any problems

O. Self view of nutritional status
0 = views self as being malnourished
1 = is uncertain of nutritional state
2 = views self as having no nutritional problems

P. In comparison with other people of the same age, how does the patient consider his / her health status?
0 0 = not as good
0 0 = does not know
1 0 = as good
2 0 = better

Q. Mid-arm circumference (MAC) in cm
0 0 = MAC less than 21
0 0 = MAC 21 to 22
1 0 = MAC greater than 22

R. Calf circumference (CC) in cm
0 = CC less than 31
1 = CC 31 or greater

Assessment (max. 16 points)
Screening score
Total Assessment (max. 30 points)

Malnutrition Indicator Score
24 to 30 points: Normal nutritional status
17 to 23.5 points: At risk of malnutrition
Less than 17 points: Malnourished

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For more information: www.mna-elderly.com

CONCLUSION:

Good nutrition is foundation of good health. Dr Hahnemann highlighted the importance of vitamins and minerals where chronic diseases interfere with the body leading to inadequate nutrition. Along with nutrition, Homoeopathic system of medicine is a holistic and it treats man as a whole which is essential for restoring the balance.

The purpose of this study is to commencement of further homoeopathic interventional study to be carried out.

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