EUROPEAN JOURNAL OF BIOMEDICAL AND PHARMACEUTICAL SCIENCES
http://www.ejbps.com

ISSN 2349-8870
Volume: 11
Issue: 4
116-127
Year: 2024

AN EXPLORATORY STUDY ON PRINCIPLES OF DIET AND DIETETICS IN CHILDREN AND INFANTS IN UNANI MEDICINE & IMPORTANCE OF NUTRITION IN ANCIENT AND MODERNERA

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Article Received on 07/02/2024 **Article Revised on 28/02/2024** **Article Accepted on 19/03/2024**

ABSTRACT
The word diet is taken from a Latin word 'dieta' means a way of living in Greek. The food therapy is an important part of Traditional Medicine, it not only nourishes and strengthens the body, but it can also prevent diseases and prolongs life. In Unani System of Medicine abundant literature regarding the Dieto-therapy has been discussed, Dieto-therapy (Ilaj bil Ghiza) is a unique non medicinal therapy by which the patients are treated and health is attained throughmodulation in dietary habits i.e. fasting, use of food stuff in more quantity having less nutritional value or less quantity having more nutrients. Unani Medicine deals with different types of diet like Dawae Ghizaee, Ghizae Dawai, Kaseef ghiza, Lateef Ghiza, Motadal ghiza and many more. As dietotherapy is the use of food as an agent in effecting recovery from illness. It is concerned with those receiving normal diet as well as those for whom modified diet has been prescribed. Modified diets are the principal therapeutic agents in some metabolic diseases and chronic diseases it serves as a preventive measure as well as therapeutic aid.

KEYWORDS: *Dieto-therapy, Unani Medicine, Ghiza, Nutrition, Dawa.*

I. Introduction of Diet and Diet therapy

We live in a world with rapidly changing elements our environment, food supply, population and scientific knowledge. Within individual environments, our physical bodies and our personalities change and with them our personal needs and goals. These constant changes of lives must be in some kind of positive balance to produce healthy living. Thus, to be realistic within these life concepts of change and balance, our study of food, nutrition and health care must focus on health promotion. Although we may view and define health and disease in different ways a primary basis for promoting health and preventing disease must always be good food and the sound nutrition it provides1 Dieto-therapy is a therapy by which patients are treated with a non-medicinal therapy from which health is attained by modulation of dietary habits. Dieto-therapy seeks to restore the imbalance in the body due to errant lifestyles.

Fig. 1: Food in Ancient Greek.

Unani system of Medicine lays rules for a balanced lifestyle, which revolves around six essential factors. Noncompliance with these principles leads to an errant lifestyle and ultimately leads to disease. Diet is an important component of these essential factors. The Unani system of medicine believes that a physician is not

the healer but an assistant to nature Tabiyat (physique) of the body, which is the true healer hence the diet should be in accordance with it. Diets have been mentioned according to various stages of life to maintain the digestive system at its best. Diet can be defined as any substances which are used for the purpose of providing nutrition to the body by metabolism. "Nutrition is the science of food, the nutrient and the other substances there in, their action, interaction and balance in relation to health and disease and the processes by which the organism ingests, digests, absorbs, transports, utilizes & excrete food substances".

II. Historical Background of Diet in Ancient Greek

Dieto-therapy has a long history, it stems from the Zhou Dynasty, 1000BC, Zhang Ji, a distinguished physician in the Han dynasty realized the action of dieto-therapy during the rehabilitation from the disease. Nutrition as a discrete or separate discipline has existence since Vedic times, 8000 years B.C. Charaka Samhita & Sushrutha Samhita described all major branches of medicine including dietetics. Egyptian, Roman, Greeks such as Hippocrates (460- 327 B.C.), Aristotle (384-377BC), Celus (53BC-7AD), Galen (130- 200AD) were great pioneers in dietetics.

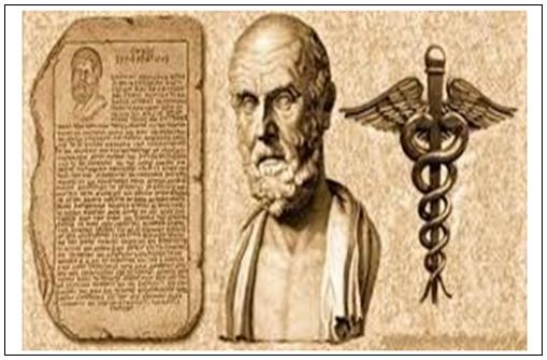

Fig. 2: Father of Medicine-Hippocrates (460-327 B.C.)

They gave much importance to diet during health & sickness, however dietetics gained more popularity during the time of Mohammed, the Prophet (PBUH) (570-632AD). The holy Quran speaks very high of the health and medicinal value of various fruits like pomegranate, figs, dates, olives, milk, honey, ginger etc. and forbids certain harmful foods like blood, putrified& un-slaughtered meat etc. Later on Arabian physicians like Rhazes (850-923AD) "The Galen of the Arabs" improved dietetics and advised "when you can heal by diet prescribe no remedy". After Rhazes another Persian by name Avicenna (989-1036AD) "The Persian Galen, gave much more importance to diet in sickness & health. His noted book "Canon of Medicine" remained a classical medical text book for many centuries all over Europe & Arabia.

Today, eating in modern Greece is indeed a very social event. It is the norm for people to relax and have great discussions and arguments ranging from politics to relationships while eating dinner or lunch. These meals can last for hours. Growing up as a Greek-American in the U.S., I remember many times at restaurants, the contrast between my family talking loudly and generally taking forever to eat, while everybody else was quietly eating their food, paying the bill and leaving. Eating alone, even for the younger generations of Greeks is not common. You won't see people taking a lunch break at a park eating their meal alone. Instead Greeks will either order all together at the office, sometimes sharing food they have brought from home. Reservations for restaurants are not as common in Greece either, and if they are made, it is assumed that the table will be reserved for the whole evening as there is no way of knowing when the diners will leave.

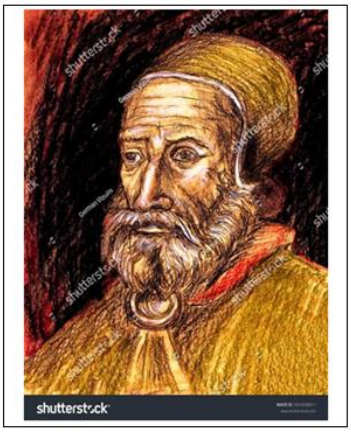

Fig. 3: Galen (130- 200AD).

III. The Three Fundamentals Greek for Diet

The 3 fundamentals were the most important ingredients for the Ancient Greek: Bread, Wine and Olive Oil. This was part of the dietary model or what we can call food ideology. For the Greeks these foods represented frugality and the simple life along with honey and figs. It is thought that this represented loyalty to their country since these fundamental foods were produced in Greece and therefore it was not necessary to import rare luxury type foods, they were happy with their own. It also is thought that it had to do with areas that should be conquered; anywhere that olives and vines grew should be conquered and be Greek.

A. Wine

For Greeks wine was especially important at the symposia, which was a meeting of men for drinking, music and intellectual discussion. Greeks gave it medicinal properties, and there were even descriptions of proper and improper drinking. It is thought that much of the modern wine production practices today, are influenced by the practices of the ancient Greeks. Wine is also a very important part of Greek culture today. Gone are the days when Greece was only known for its retsina (wine that has had resin added to it). Today Greece has a high quality wine production using Greek grapes varieties that appear to be similar to the variety of

grapes used in ancient times, and that are grown only in Greece. People are starting to notice Greek wines; at this year's Decanter World Wine Awards for example, 72% of all Greek wines entered this year received an award.

Fig. 4: Wine in the ancient Greek.

B. Bread

Bread of course was a necessity in the ancient Greek diet. Greeks had a large variety of breads or bread-like products and also made them for special occasions. At some point it appears that the Greeks had 50 to 70 different types of breads. Bread is an extremely important part of the Greek cuisine; it is what nurtures the people, most Greeks cannot even imagine a meal without bread even if it is a rice or pasta dish. It is common when you go to the taverns here to be served a whole loaf of bread for 4 people and you are expected to eat it.

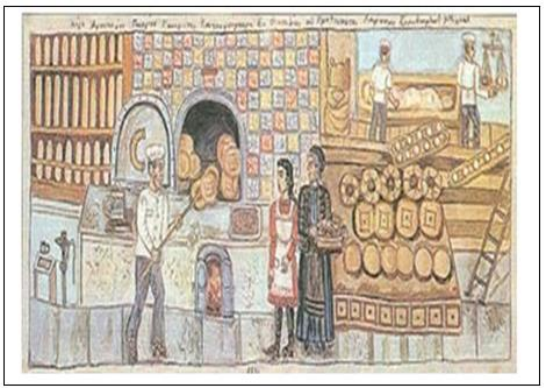

Fig. 5: Bread in the ancient Greek.

C. Olive-Oil

Olive oil was used in almost every single item that was on the table of the ancient Greek,and although there was other oil available in the Mediterranean, olive oil was the only one used for cooking. Olive oil is even more important today to the Greeks then it was in ancient Greece. Greeks are the highest consumers of olive oil in the world, with a consumption of 26 liters a year per person, which is about ½ a liter a week (2 cups). Oil is used for almost all cooking, and although there has been an effort to promote other types of vegetable oils, Greeks have not really been persuaded (rightfully so). Olive oil also holds a special position in the Greek-Orthodox religion; it is used in many ceremonies, but also in the oil lamps in the churches and at homes.

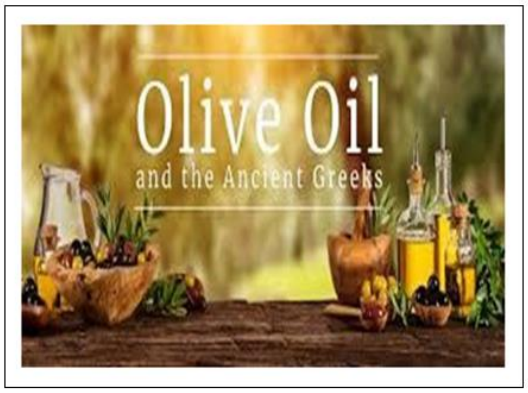

Fig. 6: Olive oil in Ancient Greek.

Honey and figs were also part of the Greek food ideology. Both produced in the land. They were used in both sweet and savory dishes. Today honey plays an extremely important role in the Greek lifestyle. As expected, it is used in the diet as a main sweetener to be consumed with herbal teas, yogurt, fruit, and walnuts and in many sweets. It is also considered to have medicinal qualities.

Meat was generally associated with festivity, luxury and sacrifice and therefore it was nota main food source. But it also separated the "men" from the "barbarians". According to the Greeks, those who consumed meat and milk were nomad hunter-gatherers as opposed to civilized people who farmed the land and could transform nature (grapes=wine, wheat=bread, olives=olive oil). Apart from barbarian connotations, it seems that meat was consumed mainly in relation to sacrifice. In the book Food, A Culinary History it says that cautious estimates show that Greeks consumed no more than 4 pounds of meat a year. Economics also played a role: the animals were more useful alive providing milk for cheese and wool.

In Modern Greece the traditional Greek diet (circa 1960) had very little meat. This had to do with religious and economic reasons like their ancient ancestors. Greek Orthodox Greeks would fast 180-200 days a year. Finances also did not allow the average Greek to eat meat very often; as in ancient times, Greeks used their animals for milk, making cheese and yogurt rather than meat. It also should be noted that sacrificing practices seem to have continued through the byzantine period where it was common to kill animals and roast them during religious seasons. We see a similar custom with modern Greeks and the tradition of roasting the lamb in public as a celebration for Easter. In the past 50 years however things have changed dramatically. The socioeconomic status of Greeks has changed and as a result, more and more Greeks have moved to big cities, do not follow the religious fasts, and eat much more meat than they used to.

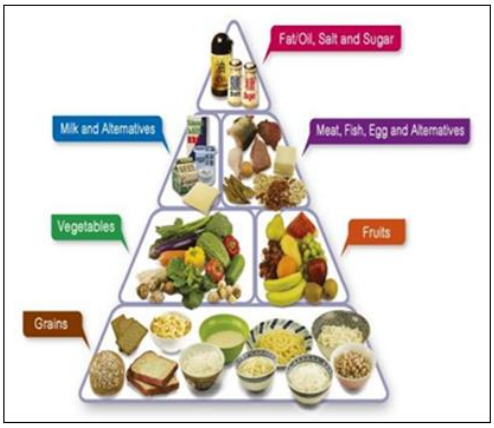

Fig. 7: Diet in Unani system of Medicine.

IV. Instructions of Diet According to Age in Unani System of Medicine

San-e-Namu: tufuoolat (Period of infancy) In Akseer ul quloob Mohd Baqer says diet of infants Exclusive breast milk should be given Milk should not be advised till the time of paher passes in this duration due to movements of the body the throat and stomach part gets enlarged, the gap can be adjusted according to the situation. Small amount of milk should be started with increase in frequent interval of time. Physicians also states "Do not give high amount of milk to the infant as it may lower the normal temperament and decrease the promotion of Growth" Intequale Ghizae (Transformation of neonatal diet):

When child is able to eat something other than milk diet which is easily palatable are advisable. After the protrusion of upper incisors diet having nutritional value and ghiza-e-lattef(light diet)can be given. Hard chewable diets are not advisable during this period. Roti is the best for chewable an. easily palatable diet Principles to maintain good nutrition for child is Massage, hamaam & Ghiza(diet) Fataam (stopping the milk or reducing it in terms of quantity) When child stop the milk start the oral diet which should be light diet in nature like Hareera, Rawa, Eaisly digestable meat Child hood period Ibn Rusd says Diet of children should be proper with Quantity, Quality, and Balance in nature. Diet high amount of suger, fruits, Paneer, Milk, Viscous diet not to be given as may produce the calculus in the bladder.

Fig. 8: Diet for Adults in Unani system of Medicine.

V. Instructions of diet in Adults (san-e-shabaab)

A. Adolescences period

In this period highly nutritious and large calorie diet which should always more than Badel-ma-Tahalul Ghulam Husnain in kamil-us-sana states that in this period of life the quantity of diet should be increased as this period is responsible for growth and development of body due because of fast digestion and metabolism(Hazem wa Istehalah) in body. In Jami-ul-Hikmat Hakeem Mohd Hassan Qarshi says non stimulant type of diet like: fresh vegetables, wheat, Ghee, tuits and milk are advisable Diet having Hot temperament like onion, Garlic and Musterd cannot be given because it may increase the bile, It may change the normal temperament of body.

B. Adult period

Ibn Rushd in Kitab-ul-Kulliyat says Ghiz-e-Lateef(light diet) can be given like Chappati, meat of young chicks, lambs meat, vegetables &fruits Hkm Qarshi says decrease the quantity of diet. Dry & Wet diet should be restricted because as it may increase the humour like sauda. Here diet should be used which are easily digestible, complete and provides as Badel-Ma-Tahlul and protects the body from disease Here Diet of high calorific and good nutritious are advisable. A period of Kaholet these counts from 40-60 years of age Qanooncha Hkm Kabeer uddin saysHot and Dry are balanced in this period of life In this period diet should not be less in quantity or nor more in quantity it should be balanced inquality, quantity temperament and easily digestible which can prevent many disease Gold and dry diets are not advisable as it may produce khilt-e- sauda.

C. Instructions of diet in old age

Greek-Arab physicians have suggested principles about Chiza of elder and Mashaikh; it should be according to their Mizaj (lomperament). Unani physicians believed that different types of food should be given to Mashaikh; but the quantity and quality of diet should be according to their digestive capacity. Frequent meal but small in quantity is recommended. Viscous, tenacious and flatulence yielding diet should be avoided. Beet root and spinach are specially advised. Regarding non veg, meat of chicken or goat is recommended. Unani scholars had also advised that diet should be taken after Hammam (bath). Use of little amount of honey, milk, rice and dates along with diet is also recommended. Secretion from the stomach and intestine should be eliminated by laxatives. Beet root is advised before meal as laxative. The food i' known to eliminate Ratoobat from intestine are advised. Milk is recommenuc for nutrition and Tarteeb (moistness). Hot temperament Murabba is also recommended. Beet root and Barley water are the best diet for Mashaikh but it is mentioned in classical texts that one should not enforce the Tabiyet for meal. Avoidance of hot condiment, Moalid Sauda and Balgham diet (Phlegm and black bile yielding diet). Drinking of water immediately after and during meal should be avoided. Mashaikh are advised to take meal at

the time of hunger only and salty diet should be taken first. For better sleep moist and hot diets are recommended. Sleeping should be avoided on empty stomach as it causes dryness in the body. Diet should be according to their physiology. Unani scholars also recommended the use of moist diet in case of excess dryness in the body. If the digestion of Mashaikh is good, diet should be taken in small quantum and identical. Sour diet cause early maturity so should be avoided Innate energy and digestion are weak in Mashaikh. In winter, hot and wet diet prescribed. For preservation of health of Mashaikh good, nutritive and digestible diet should be given; and property and proportion of diet should be maintained to moderate. The digestive faculty of old is weak and physical work is also minimal so they should take a less amount of food. Ghaleez and delay to digest diet like Hareesa, khushkgosht, tanoorki roti, Masoorki dal etc are better to avoided, beacause they may lead to Istisqa (Ascitis)and Hisat-e-Masana(Urinary bladder Stone).

Fig. 9: Diet for older in Unani system of Medicine.

The dietary food supplements which are recommended by Unani scholars are Honey, Milk, Meat of chicken and lamb, Olive oil Small size fish. Fruits and dry fruits: Muskmelons, Grapes, Haleelah, Wal Nut, Almond Mulbery, Large Raisin (Vitis) Prunus Dates Vegetables and Cereals: Beet root Spinach Rice Barley Garlic Onion Ginger Pistacia Galls (Kasni) The Lettuce (Kahu) Common Mallow Black pepper With regards to diet, Unani system recommends small amounts of foods at frequent intervals for old-aged persons. Milk is beneficial for them only if they can digest it fully and goat's milk is considered as the best for them. Vegetables and fruits specially suitable of elderly include cabbage, carrot, green-leafy, vegetables, grapes, citrus fruits, cherry, green tea etc. The use of garlic is also regarded as beneficial for them. In the light of modern research it is now known that anti-oxidants play as vital role in maintaining health during old age. Various antioxidants like Beta carotene, Vitamin C, Bioflavonoids, Indoles, Polyphenols and allergic acid are present in the above recommended fruits.

VI. Nutrition in infants and Children in Unani system of Medicine

A. Nutrition for Infants

Nutritional requirement for infant have largely based on breast milk intakes combined with supplement Breast milk provides almost all the nutrients to the infant that are adequate enough to meet his requirement it contains adequate amount of fat which is highly emulsified and there for better digested The lactose present in the breast milk provides natural sweetness to the milk and also helps in the absorption of calcium and iron. The amount of protein in breast milk is less then that in cow's milk however this is advantages for the baby as it reduces pressure on the infant kidneys as compare to other animals milk breast milk provide an adequate amount of vitamin C to the baby.

The iron present in the breast milk has a higher bioavailability similarly, the calcium present is also better absorbed. In addition to providing nutrients, breast-milk has several special components such as growth factors, enzymes, hormones and anti-infective factors. The amount of milk secreted increases gradually in the first few days after delivery, reaching the peak during the second month, at which level it is maintained until about 6 months of birth. Breast-milk provides good quality proteins, fat, vitamins, calcium, iron and other minerals even beyond four months. In fact, quality of some of the nutrients can be improved by supplementing the diet of the mother with nutrients. Growth performance of majority of the breast-fed infants is satisfactory up to 6 months of age. Breast feeding is associated with better cognitive development possibly due to the high content of decahexaeonic acid (DHA) which plays an important role in brain development. Breast-milk alone is not adequate for the infant beyond 6 months of age. Introduction of food supplements (semi-solid complementary foods) long with breast-feeding is necessary for infants after 6 months of age. Provision of adequate and appropriate supplements to young children prevents malnutrition. Hygienic practices should be observed while preparing and feeding the Complementary food to the child; otherwise, it will lead to diarrhea.

Fig. 10: Diet for infants in Unani system of Medicine.

B. Nutrition for Children

A nutritionally adequate diet is essential for optimal growth and development. Appropriate diet and physical activity during childhood is essential for optimum body composition, BMI and to reduce the risk of diet-related chronic diseases in later life and prevent vitamin deficiency. Common infections and malnutrition contribute significantly to child morbidity and mortality. A child needs to eat more during and after episodes of infections to maintain good nutritional status.

Protein energy malnutrition is defined as range of pathological condition arising from coincident like of varying proportion protein and calorie occurring most frequently in infant and young children and often associated with infection. WHO says the peak prevalence of kawishoker is frequently seen in the age group of 2-3 years and marasamus in 1-2 years.

VI. Classification of Nutritional Disorders

A. Under Nutrition
- Quantitative deficiency In Children- Marasmus
- In Adults various forms of starvation, anorexia nervosa, bulimia.

B. Malnutrition
- Qualitative deficiency
- Protein Deficiency Protein energy malnutrition (PEM).
- Vitamin D-Rickets.
- Vitamin C Scurvy.

C. Excess Nutrition
- Quantitative - obesity.

D. Excess Nutrition
- Qualitative
- Excess cholesterol - Hyperlipidaemia.
- Excess vitamins Hyper vitaminosis A,D

E. Effects of Toxins in food
- Migrain, urticaria, coeliac disease, Lathyrism.
- Malnutrition.
- Protein Energy Malnutrition.
- A Vitaminosis.
- Mineral deficiency.
- Over Nutrition
- Obesity

VII. Nutritional deficiency

A. Protein Energy Malnutrition (PEM)

It is a form of malnutrition where there is in adequate calorie or protein intake.

(a) Kwashiorkor (protein malnutrition predominant)
(b) Marasmus (deficiency in calorie intake)
(c) Marasmic Kwashiorkor (marked protein deficiency and marked calorie Insufficiency signs present, sometimes referred to as the most severe form of malnutrition)

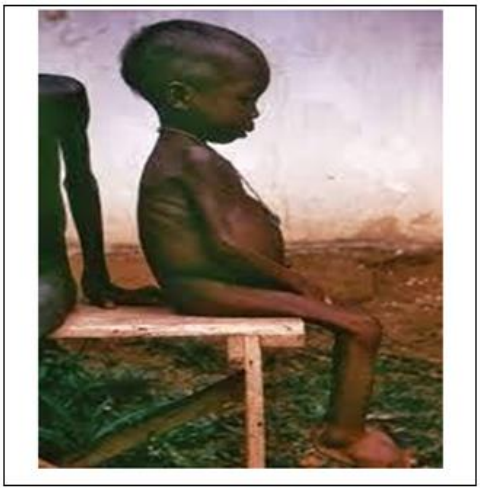

Fig. 11: Kwashiorkor.

PEM is fairly common worldwide in both children and adults and accounts for 6 million deaths annually. In the industrialized world, PEM is predominantly seen in hospitals, is associated with disease, or is often found in the elderly. Note that PEM may be secondary to other conditions such as chronic renal disease or cancer cachexia in which protein energy wasting may occur. Protein-energy malnutrition affects children the most because they have less protein intake. The few rare cases found in the developed world are almost entirely found in small children as a result of fat diets, or ignorance of the nutritional needs of children, particularly in cases of milk allergy. Kwashiorkor is a form of severe protein-energy malnutrition characterized by edema, irritability, ulcerating dermatoses, and an enlarged liver with fatty infiltrates. Sufficient calorie intake, but with insufficient protein consumption, distinguishes it from marasmus. Kwashiorkor cases occur in areas of famine or poor food supply Cases in the developed world are rare. Breast milk contains proteins and amino acids vital to a child's growth. In at-risk populations, kwashiorkor may develop after a mother weans her child from breast milk,replacing it with a diet high in carbohydrates, especially sugar, but deficient in protein Marasmus is a form of severe malnutrition characterized by energy deficiency. A child with marasmus looks emaciated. Body weight is reduced less than 60% of the normal (expected) body weight for the age. Marasmus occurrence increases prior to age 1, whereas kwashiorkor occurrence Increases after 18 months. It can be distinguished from kwashiorkor in that kwashiorkor is protein deficiency with adequate energy intake whereas marasmus is inadequate energy intake in all forms, including protein. Protein wasting in kwashiorkor may lead to edema. The prognosis is better than it is for kwashiorkor but half of severely malnourished children die due to unavailability of adequate treatment.

VIII. Classification of PEM (Protein, Energy Malnutrition)

A. Vitamin A Deficiency (VAD)

Vitamin A deficiency (VAD) or hypo-vitaminosis: A is a

lack of vitamin A in blood and tissues. It is common in poorer countries but rarely seen in more developed countries. Nyctalopia (night blindness) is one of the first signs of VAD. Xerophthalmia, keratomalacia, and complete blindness can also occur since Vitamin A has a major role in photo-transduction. The common cause of blindness in developing countries is VAD. The World Health Organization (WHO) estimates 13.8 million children to have some degree of visual loss related to VAD. Night blindness and its worsened, condition, xerophthalmia, are markers of VAD, as it can also lead to impaired immune function, cancer, and birth defects. Collections of keratin in the conjunctiva, known as Bitot's spots, are also seen. Imtiaz's sign is the earliest ocular sign of VAD. Conjunctival epithelial defects occur around lateral aspect of thelimbus in subclinical stage of VAD. These conjunctival epithelial defects are not even visible on a biomicroscope, but they take up black stain and become readily visible after instillation of kajal (surma): this is called "Imtiaz's sign". Night blindness is the difficulty for the eyes to adjust to dim light. Affected individuals are unable to distinguish images in low levels of illumination. People with night blindness have poor vision in the darkness, but see normally when adequate light is present. VAD affects vision by inhibiting the production of rhodopsin, the eye pigment responsible for sensing low light situations. Rhodopsin is found in the retina and is composed of retinal (an active form of vitamin A) and opsin (a protein). Because the body cannot create retinal in sufficient amounts, a diet low in vitamin A will lead to a decreased amount of rhodopsin in the eye, as there is inadequate retinal to bind with opsin.

Night blindness caused by VAD has been associated with the loss of goblet cells in the conjunctiva, a membrane covering the outer surface of the eye. Goblet cells are responsible for secretion of mucus, and their absence results In xerophthalmia, a condition where the eyes fail to produce tears. Dead epithelial and microbial cells accumulate on the conjunctiva and form debris that can lead to infection and possibly blindness.

Decreasing night blindness requires the improvement of vitamin A status in at- risk populations. Supplements and fortification of food have been shown to be effective interventions. Supplement treatment for Night blindness includes high doses of vitamin A (200,000 IU) in the form of retinyl palmitate to be taken by mouth, which is administered two to four times a year. Intramuscular injections are poorly absorbed and are ineffective in delivering sufficient bio- available vitamin A. Fortification of food with vitamin A is costly, but can be done in wheat, sugar, and milk. Households may circumvent expensive fortified food by altering dietary habits. Consumption of yellow-orange fruits and vegetables rich in carotenoids, specifically beta-carotene, provides pro- vitamin A precursors that will prevent VAD related night blindness.

B. Lodine Deficiency Diseases (IDD)

Lodine deficiency is a lack of the trace element iodine. It may result in goiter (so-called endemic goiter), as well as cretinism, which results in developmental delays and other health problems. lodine deficiency is an important public health issue as it is a preventable cause of intellectual disability. lodine is an essential trace element the thyroid hormone thyroxine and triiodothyronine contain iodine. In areas where there is little iodine in the diet, typically remote inland areas where no marine foods are eaten, iodine deficiency is common. It is also common in mountainous regions of the world where food is grown in iodine-poor soil.

Fig. 12: Iron Deficiency.

Prevention includes adding small amounts of iodine to table salt, a product known as iodized salt. lodine compounds have also been added to other foodstuffs, such as flour, water and milk, in areas of deficiency. Seafood is also a well-known source of iodine. In areas where there is little iodine in the diet, typically remote inland areas and semi-arid equatorial climates where no marine foods are eaten, iodine deficiency gives rise to hypothyroidism, symptoms of which are extreme fatigue, goiter, mental slowing, depression, weight gain, and low basal body temperatures. lodine deficiency is the leading cause of preventable mental retardation, a result which occurs primarily when babies or small children are rendered hypo-thyroidic by a lack of the element. The addition of iodine to table salt has largely eliminated this problem in the wealthier nations, but as of March 2006, iodine deficiency remained a serious public health problem in the developing world.

C. Iron Deficiency Anemia (IDA)

Iron-deficiency anemia, also spelled iron deficiency anemia, is anemia caused by not enough iron. Anemia is defined as a decrease in the amount of red blood cells (RBCs) or hemoglobin in the blood. When anemia comes on slowly, the symptoms are often vague and may include feeling tired, weakness, shortness of breath or poor ability to exercise. Anemia that comes on quickly often has greater symptoms which may include confusion, feeling like one is going to pass out, and increased thirst. There needs to be significant anemia before a person becomes noticeably pale. There may be

additional symptoms depending on the underlying cause. It is caused by insufficient dietary intake and absorption of iron, or iron loss from bleeding. Bleeding can be from a range of sources such as the intestinal, uterine or urinary tract. The most common cause of iron-deficiency anemia in children in developing countries are parasitic worms. Worms cause intestinal bleeding, which is not always noticeable in feces, and is especially damaging to children. Malaria, hookworms and vitamin A deficiency contribute to anemia during pregnancy in most underdeveloped countries. In women over 50 years old, the most common cause of iron- deficiency anemia is chronic gastrointestinal bleeding from nonparasitic causes, such as gastric ulcers, duodenal ulcers or gastrointestinal cancer. Iron deficiency causes approximately half of all anemia cases worldwide, and affects women more often than men. In areas where there is little iodine in the diet, typically remote inland areas and semi-arid equatorial climates where no marine foods are eaten, iodine deficiency gives rise to hypothyroidism, symptoms of which are extreme fatigue, goiter, mental slowing, depression, weight gain, and low basal body temperatures. Iron deficiency causes approximately half of all anemia cases worldwide, and affects women more often than men. In areas where there is little iodine in the diet, typically remote inland areas and semi-arid equatorial climates where no marine foods are eaten, iodine deficiency gives rise to hypothyroidism, symptoms of which are extreme fatigue, goiter, mental slowing, depression, weight gain, and low basal body temperatures. lodine deficiency is the leading cause of preventable mental retardation, a result which occurs primarily when babies or small children are rendered hypothyroidic by a lack of the element. The addition of iodine to table salt has largely eliminated this problem in the wealthier nations, but as of March 2006, iodine deficiency remained a serious public health problem in the developing world.

Iron absorption

Iron from food is absorbed into the bloodstream in the small intestine, especially the duodenum and proximal ileum. Many intestinal disorders can reduce the body's ability to absorb iron. There are different mechanisms that may be present. In cases where there has been a reduction in surface area of the bowel, such as in celiac disease, inflammatory bowel disease or post surgical resection, the body can absorb iron, but there is simply insufficient surface area. If there is insufficient production of hydrochloric acid in the stomach, hypochlorhydriaachlorhydria (often due to chronic H. pylori infections or long-term proton pump inhibitor therapy) Ferrous and Ferric iron salts will precipitate out of solution in the bowel which are poorly absorbed. In cases where systemic inflammation is present, iron will be absorbed into enterocytes, but due to the reduction in basolateral ferroportin molecules which allow iron to pass into the systemic circulation, iron is trapped in the enterocytes and is lost from the body when the enterocytes are sloughed off.

Table 01: Energy Requirements for Indians at Different ages (2012).

Age group	Category	Body Weight	Requirements (Kcal/d)	
			(Kcal/kg/day	(Kcal/kg/day
Man	Sedentary work	60	3200	39
	Moderate work	60	3400	46
	Heavy Work	60	3490	58
Woman	Sedentary work	55	1900	35
	Moderate work	55	2230	41
	Heavy Work	55	2850	52
	Pregnant Woman	55 GWC	350	
	Lactating woman	55 GWC	600	
Infant	0-6 months	5.4	500	92
	6-12 months	8.4	670	80
Children				
Boys	10-12 year	34.3	2190	64
Girls	10-12 year	35.0	2010	57
Boys	13-15 year	47.6	2750	58
Girls	13-15 year	46.6	23330	50
Boys	16-17 year	55.4	3020	55
Girls	16-17 year	52.1	2440	47

Table 2: ICMR Recommended Dietary Allowances for Infants -2010.

Nutrient	Months	
	0-6	6-12
Body Weight kg		
Energy Kcal	92	80
Protein g	1.16	1.69
Visible fat g	------	19

Calcium mg	500	500
Iron mg	46 ug/kg	05
Vitamin A		
Retinol µg	350	350
B-carotene	2800	2800
Thiamine mg	0.2	0.3
Riboflavin	0.3	0.4
Nicain equivalent mg	710	650
Pyridoxine mg	0.1	0.4
Ascorbic acid	25	25
Dietary folate µg	25	25
Vitamin B1	0.2	0.2
Magnesium mg	30	0.2
Zinc	----	45

Table 3: ICMR Recommended Dietary Allowances for pre-school children 1-6 year -2010.

Nutrient	Year	
	1-3 year	4-6 year
Body Weight kg	12.9	18.0
Energy Kcal	1060	1350
Protein g	16.7	20.1
Visible fat g	27	25
Calcium mg	600	600
Iron mg	9	13
Vitamin A	---	---
Retinol µg	400	400
B-carotene	3200	3200
Thiamine mg	0.5	0.7
Riboflavin	0.6	0.7
Niacin equivalent mg	8	11
Pyridoxine mg	0.9	0.9
Ascorbic acid	40	40
Dietary folate µg	80	100
Vitamin B1	0.2-1.0	0.2-1.0
Magnesium mg	50	70
Zinc	5	7

Table 4: ICMR Recommended Dietary Allowances for children 6-12 year -2010.

Nutrient	Year	
	6-9	9-12
Body Weight kg	25.1	34.3
Energy Kcal	1690	2190
Protein g	29.5	39.9
Visible fat g	30	35
Calcium mg	600	800
Iron mg	16	21
Vitamin A	----	---
Retinol µg	600	600
B-carotene	4800	4800
Thiamine mg	0.8	1.1
Riboflavin	1.0	1.3
Niacin equivalent mg	13	15
Pyridoxine mg	1.6	1.6
Ascorbic acid	40	40
Dietary folate µg	120	140
Vitamin B1	0.2-1.0	0.2-1.0

Magnesium mg	100	120
Zinc	8	9

Table 5: ICMR Recommended Dietary Allowances for Adolescents -2010.

Nutrient	years			
	13-15 years		13-15 years	
	Boys	Girls	Boys	Girls
Body Weight kg	47.6	46.6	55.4	55.1
Energy Kcal	2750	2330	3020	2440
Protein g	54.3	51.9	61.5	62.3
Visible fat g	45	40	60	55.5
Calcium mg	800	800	800	800
Iron mg	32	27	28	26
Vitamin A	---	---	---	---
Retinol µg	600	600	600	600
B-carotene	4800	4800	4800	4800
Thiamine mg	1.4	1.2	1.5	1.0
Riboflavin	1.6	1.4	1.8	1.2
µuivalentmg	16	14	17	14
Pyridoxine mg	2.0	2.0	2	2.0
Ascorbic acid	40	40	40	40
Dietary folate µg	150	150	150	150
Vitamin B1	0.2-1.0	0.2-1.0	0.2-1.0	0.2-1.0
Magnesium mg	165	210	195	235
Zinc	11	11	12	12

CONCLUSION

Unani medical sciences has vast description of diet and nutrition Today medical science is giving importance to nutrition in health and diseases but Unani physicians are far away ahead of science based on the study carried out on instructions of diet and importance of nutrition it proves Unani medical base where diet is described in detaile as therapeutic and prophylactic Apart from that physicians also discussed the wisdom of the physicians may play a vital role in selecting the ideal food Medical importance of particular food were also explained physiology of nutrition when it get disturbed then pathology of the organs and occurrence of diseases where explained, nutritional value of food nutritional status of the person are also mentioned as evident by classical literature.

Dietery instructions play an important role to treat and to prevent diseases. Dietary instructions minimizes the duration of treatment and improve the drug tolerance by slight modification in diet or proper management of diet In chronic illnesses like diabetes mellitus, hypertension, renal diseases, modified diets helps in preventing complications and improve the health condition.

SUMMARY

To adjust the diet to the body's ability to use certain foods, To produce a specific effect as a remedy, to overcome deficiencies by the addition of food rich in some necessary element Ilaj Bit Ghiza is the hallmark of treatment methodology in Unani system of medicine. Unani physicians often suggest dieto-therapy as the first line of treatment or as adjuvant therapy with other modalities of treatment. Unani scholars have been practising this Dietary instructions for prophylactic purposes for the maintenance of health as well as for therapeutic purposes for the treatment of diseases since ancient times. Dietary instructions is mainly emphasized for the prevention and treatment of cardiovascular, gastrointestinal, hepatobiliary, renal, skin, sexual, endocrinal and nervous disorders. assess the temperament of the person and gaves dietaryinstructions accordingly. Because the physicians identify the temperament of the disease, Before pharmacotherapy, Unani physicians advise restriction or alteration in daily diet, adjusted according to disease, and wait for a few days because some diseases can be cured even with diet. During the treatment, specific diets are advised according to disease. Unani medicine is very popular for the prevention of diseases like gastric ulcer, hepatitis, ischaemic heart disease, hypertension, diabetes mellitus, sexual debility, renal stones, vitiligo, psoriasis and paralysis through its dietery.

REFRENCES

1. Abu Sahi Ibne Yahiya Maishi New Delhi: CCRIUM, 2008; 152, 154, 178- 199, 257-292.
2. Avicenna. The general principles of Avicenna: The Canoon of medicine. New Delhi 2007; 309-324.
3. Kitab ul, Kulliyat IBN Rushd AM. CCRUM, MOHFW, 2ND EDI, 1987, New Delhi 212- 214.
4. Bu Ali sina, Al, Rayees, Shaik (Kunturi, Gulam Hussain) Al Qannon Fi'l tibb (Urdu) vol 2 and Idara e Kitab Al Shifa, New Delhi, 163, 164.
5. Qarshi Alauddin, Allama (Hkm. Md Kabeeruddin) ifade kabeer (Mufassal) sharah Majoz ul Qanoon

(urdu) Sharah Maojiz ul Qanoon (urdu) Qaumi Council Barae Firogh-E-UrduZaban Delhi, 1916.D
6. Tarjuma wa sharah kulliyat e Nafeesi, old volume GNTC library Hyderabad Telangana, 281; 377-388.
7. Bu Ali Sina Al Rayees, Shaik, Kabeeruddin, Md Hakeem Kulliyat e Qanoon (Tarjuma wa sharah)vol 1&2 (Arabic &Urdu), Daftar Al Maseehi, Aijaz Publishing House, New Delhi, 1932(1350, A.H)
8. Ashar Qadeer, Tareeq e tibb WA Aqlaqiyat(urdu) 2005, Rubai printers, New Delhi.
9. Qarshi, Shifa ULmilk Hakeem Mohameed Hassan, Jami ul Hikmat(Urdu) Aijaz Publishing House, New, Delhi, 173, 243.
10. Jurjani, Ahmed Hassan Al, Zakhirae khwazim shahi (urdu) publisher, Idare e kitab ul shifa New Delhi.
11. Rabban Tabri, Abu Al Hassan Ali Bin Sahal 2010 Firdaus UI Hikmat (urdu) 2010 vol 1 & 2 publisher Idare e kitab ul shifa New Delhi, 178-199, 257-299.
12. Chughmani, shamsuddin, (Kabeeruddin, Mohammed, Hkm) Qanooncha pg.no 203 (Arabi&Urdu) Nazim Daftar al Maseehi, Delhi 1928; 123,136.
13. Wamiq mulk Ameen, Qadeem ilmul Amraz (urdu) National council for promotion of urdu langagues, West block IRK Puram new Delhi, 2010; 48-50. 56, 57.
14. Kabeer uddin, HKM Mohameed, kitab Al Akhlat (Arabic & urdu) Nazeem Dafter Almaseehi 1946.
15. Baghdadi, Mohazabudin Abul Hasan Ali Bin Ahmed Bin Hubul Kitab al Mukhtaarat fi tibb(urdu) vol 2 CCRUM 2005 A.D.
16. Razi Zakeriya, Mohammed Bin Abu, Bakkar, Kitab al mansoori (urdu) CCRUM 1991 A.D. 23.
17. Nadwi Razi ul islam, md Kulliyat tibh kae Masadir wa maraje (urdu) uttar Pradesh, urdu academy 1995 A.D.
18. Hassan Mohammed Hkm, Aqsaraaiye urdu (fun e awal) (urdu) vol: matbaa gulzar mohammed ki miyaz thad 1309 A.D
19. Antaki Dawud Tazkirath- AL-Oolul Albaab Wa Jamey Ajabul Ajaib(Arabic)ALjiid al awal (1" volume) CCRUM Publication CRIUM Library Erragadh, Hyderabad.
20. Falsafi Abdul Lateef, Hkm (Zillur Rahman, Syed Hkm), Tajdeed-e-Tibb.(Urdu) Aala press, Delhi, 1972 A.D.
21. Kabeeruddin, Md. Hkm. Kulliyat-e-Advia (Urdu), Nazim Dafter Al Maseeh, Delhi, 1926A.D.
22. Ahmed Basheer, Hkm.Al Qanoon, (urdu), Rooz Bazar steem press, Amritser. 1912 A.D
23. Azami. Ahmed Altaf, Hkm. Mubadiyath-e-tibb par ek Tahqeeqi Nazar, (urdu) Tarkhee urduBoard, New Delh.
24. Kamil us sana, Majoosi Al A. Kaamilus Sana'ah. New Delhi: CCRUM: 2010.
25. Jameel Abu waris dr. Tauzihath-e-kulliyat, (urdu), Bharath offset press New Delhi, 2006 A.D.
26. Arzani Akbar, Md, Hkm & Noor Kareem, Md. Hkm., Akseer Al Quloob Tarjuma Mufarreh Al Quloob(Persian&urdu), Matba munshi Nawal Kishore, Lucknow 1907 A.D
27. Williams SR Basic Nutrition and Diet therapy, 10 ED USA 1995.
28. Siddiqui MMH and Khan MS Dietotherapy and its significance with special refrence to the management of Dique (Tuberculosis) Indian journal of Traditinoal knowledge, 2008; 397-400.
29. larenMc. Donald s. nutritional disorders wolfe medical publication Itd.
30. Fleck Henrietta Introduction to Nutrition 4th edition Macmillan Publishing, newyork collier Macmillan publishers London.
31. Manay N. Shakuntala, M, Shadaksharas swamy, New age international (p) limited publishers 3rd edition 2008, New Delhi.
32. Mirza ghufran baig et al. journal of biological science & scientific opinion, 2015; 3(1).
33. Zaman r Basar SN Dietotherapy in Unani medicine International journal of Pharmaceutical Chemical and biological science, 2013; 3(4): 1035-1039.
34. Siddique MH, khan MS Dietotherapy and its significance with special reference to management of Dique (Tuberculosis) Indian journal of traditional knowledge, 2007: 7(3): 397-400.
35. Jamil Abu waris UNIMED- Journal-KULLIYAT-Oct 2007, Dept of Kulliyat Ajmal Khan Tibbiya College AMU Aligarh.
36. Dietary Guide Lines for Indians A Manual National Institue of Nutrition Hyd.
37. Ahmed Ishtiyaq Syed Introduction to Al Umur-AL-Tabi'yah (Principals of Human Physiology in Tibb) (English saini printers, Pahari Dhiraj, New DELHI, 1980; 253: 277-279.
38. Ansari Yousuf, Md.Dr. Tahafuzi WA Samaji Tibb (urdu) Aejaz Publishing House New Delhi 2008 A.D P.no 130-142.
39. Zaidi, Iqdtidarul Hassan. Atext Book of Kulliyat-e-umoor-e tabiyah (Basic principles of unani medicine), (English). Litho offset printers, Achal Tal, Aligarh, 2011 A.D. C.C.R.U.M. library, Hyderabad.pg.no
40. H. S. K. Hamdani Usoole Tib. New Delhi: Qaumi council bar farogh urdu zaban, 1998; 111,112,152,-154, 174, 405-407.
41. Baghdadi AIAIH. Kitabul Mukhtarat Fit Tib. 1st ed., New Delhi: CCRUM, 2004.
42. Razi.A.B, Kitab-ul-Murshid. New Delhi: Taraqqi urdu, 2000.
43. Abi Osaibah I.Oun-ul-Anba Fi Tabqat-ul-Atibba. Ist vol(Urdu translation). New CCRUM:1992.
44. Azmi WA. Tahaffuziwa Samaji Tib. New Delhi: IdaraKitab us Shifa, 2009.
45. Ahmed Ishtiyaq Syed Introduction to Al Umur-AL-Tabi'yah (Principals of Human Physiology in Tibb) (English, saini printers, Pahari Dhiraj, New DELHI, 1980; 78, 91.
46. Ansari Yousuf, Md. Dr. Tahafuzi WA Samaji Tibb (urdu) Aejaz Publishing House New Delhi 2008 A.D P.no 123, 131, 140, 144.

47. Zaidi Iqdtidarul Hassan. Atext Book of Kulliyat-e-umoor-e tabiyah(Basic principles of unani medicine), (English), Litho offset printers, Achal Tal, Aligarh, 2011 A.D, C.C.R.U.M, library, Hyderabad.pg.no 56,59,62.
48. K.Park Preventive and social Medicine, Banarsidas Bhanot Publishers, edition, 2000; 233, 304-315.
49. Chandpuri, Kauser Mujooz Al Qannon, urdu beureu New Delhi, 127.
50. Rahman A et al., Importance of Ghiza (Diet) in Geriatrics with Special Reference to Unani Medicine. American Journal of Pharmacy & Health Research 2014.
51. Srilakshmi Dietetics & Nutrition, new age international publishers, 7th edition 2014 new Delhi, Daryagunj 27, 40, 67, 95, 108, 129,141,151.