

Al-Arkan Theory of Origin and Continuation of life: Misunderstood and Ignored

Tanwir M. Alam¹, Mohd Zulkifle², Abdul H. Ansari³, Aisha Perveen⁴, Anzar Alam⁵, Nafis Iqbal⁶

¹Department of Preventive and Social Medicine, Allama Iqbal Unani Medical College (AIUMC), Muzaffarnagar, UP, India

²Kulliyat (Basic Science), National Institute of Unani Medicine (NIUM), Kottigepalya, Bangalore, Karnataka, India.

³Department of Preventive and Social Medicine, National Institute of Unani Medicine (NIUM), Kottigepalya, Bangalore, Karnataka, India.

⁴Department of Pharmacology (Ilmul Advia), National Institute of Unani Medicine (NIUM), Kottigepalya, Bangalore, Karnataka, India.

⁵Department of Moalajat (Medicine), National Institute of Unani Medicine (NIUM), Kottigepalya, Bangalore, Karnataka, India.

⁶Department of Kulliyat(Basic Science), Jamia Tibbiya Deoband, Saharanpur, UP, India.

ABSTRACT

To explain the origin and continuation of life, Scholars of Unani (Greco-Arab) System of Medicine proposed the theory of Al-Arkan/Arkan or Anasir (element) (wrongly interpreted and correlated with modern Elemental theory). This theory was being criticized mostly for its contents in present scenario. But critics hardly think of the spirit of theory. They simply criticized its wording without context and relation in which it was proposed. The very first word which drawn maximum attention was "simplest" in this theory and we always put it for matter while it is for status. This word was supplied for elementary participation of the Arkan in origin and continuation of life.

Key words: Unani system of medicine, Al-Arkan, Anasir, Elemental theory, Origin and continuation of Life.

INTRODUCTION

Man was always anxious to know about the evolution of world, the origin of self, control of the universe, causes of any change perceived by him for the first time and the outcome of natural happenings. For the evolution of universe concept of Al-Arkan/Arkan/Anasir (Arabic word equivalent to element) element has been put forth. Whenever the arguments in favour of an element were found inadequate and insufficient, another theory was presented. Then there was a time when the concept of two element theory was reigning, as it did suffer the same limitation it had given way to much broader concept of three elements. Needless to emphasise that these concepts revolve around air, water, earth and fire- as they were abundant most around. Finally concept of four elements (Arkan) was evolved which gain universal acceptance and reigned supreme for centuries and still commands recognition, at least conceptually, in ancient system of medicine (especially Unani system of medicine). This concept was widely accepted and Hippocrates (460-377 B.C.), Aristotle (384-322 B.C.), Galen (130-200 A.D.), Avicenna (980-1037 A.D.) and in fact all their followers afterward become exponent of this concept. There is valid reason for its universal acceptance. It is because it covers three states of matter viz. solid (Earth), liquid (Water) and gas (Air), and fourth one the causative of change i.e. heat (Fire) (1,2).

Correspondence:

Tanwir M. Alam

Department of Preventive and Social Medicine, Allama Iqbal Unani Medical College (AIUMC),
G.T Road, Roorkee Chungi, Muzaffarnagar, Uttar Pradesh-25102, India.

e-mail: tanveernium3133@gmail.com

Every knowledge flourish on its own theories and concepts. These may be reluctant or firm. When theories and concepts are reluctant, they have a tendency to assimilate other knowledge for their clarification. It is beyond doubt that existing sciences and related knowledge influence the concept and theories put forward for any problem. Thus correlation, with those sciences which had influenced the scientist, becomes inevitable. Moreover bifurcation and separation of nano sciences took with them the spirit of the parent science. The obvious result of such separation is modification, sometimes; it obsoletes the parent theory and left it for historian. The evolution has impacted on all sciences but a few concepts are so concrete which remain unaffected by the changes of time.

The theories are formulated to explain some/any existing unsolved riddle of the event(s) occurring frequently in universe or in the body. One such unsolved riddle is origin and continuation of life. It has always been a challenge for the expert of the field. Obviously the challenge has always been accepted by the experts of every time. When we look the glimpse of past we see none except Greco-Arab philosopher who had been engaged in formulating the various concepts and theories related to various field of that and present time.

Some theories of that time have lost their utility and have been replaced by more befitting new theories. But some are still in their very form and awaiting replacement or modification. Befitting modification is not an easy task; however, verbal criticism cant be avoided and prevented. Criticism for the sake of criticism originates from mainly four factors.

- Jealousy
- Lack of in-depth knowledge
- Unnecessary influence
- Lack of faith

These factors hinder to realize the reality and make ashamed to accept reality. Notwithstanding the demerits same factors compel the thinker to seek help from others what is correlation. While, correlation is possible only in the things which are of same context, period and relation. Statistically correlation indicates definite inter

relationship in two factors. This inter-relationship may be reciprocal, negative and positive. Explanation of any thing in terms of such thing which is not suitably related and deals with other context is really a lacuna.

We know very well the conception of the universe in terms of four, or five, elements has been found among all peoples. To argue in favour of the doctrine almost compels an attempt at harmonization of its different forms (Aristotelian, Indian, Persian, Chinese, for instance). The Arkan are simple bodies whose proportions are set for every individual. They are the primary components of the human being throughout all its parts, as well as of all other bodies in their varied and diverse forms. The various orders of beings depend for their existence on the intermixture of the Arkan. Unani philosophy speaks of four elements (Arkan) and no more. The physician must accept this. Two are light and two are heavy. The lighter elements are Fire and Air; the heavier are Earth and Water (3).

The two heavy elements enter more into the construction of the members (and fluids of the body) and contribute to repose. The two light elements enter more into the formation of the breaths and contribute to their movements as well as to the movement of the members- always remembering that it is the form that is the motor (and not the breath. The form initiates the breaths and through them moves the organs of the body and the limbs.) So much for the Arkan. It is the form that is the motor and not the breath in this sentence is contained the crux of the whole subject. Form, used in the scholastic sense, has a subtly specific meaning when applied to the human being. This meaning is gone into in the accompanying exposition. Briefly, the form when associated with the solid, fluid, and gaseous components (Earth, Water, Air) of the body is called a living human being and it accounts for the continual movement of the breaths (life principle/ Ruh) which manifests to the onlooker that human being really is living. The quantitative and qualitative admixing and mixture of arkan determines the form and varieties of living and non living things. Similarly in case of living things, their complexity is directly proportional to the qualitative and qualitative participation of the four arkan in their origin and existence. Through the doctrine of the Arkan, the

existence of a subtle indispensable link between tissue, organs, fluids, and mental attribute become intelligible (3).

The suggested names for Arkan are (2-7)

- Al-Arz (Earth/Soil) with all its contents.
- Al-Ma (Water) with all its contents.
- Al-Hawa (Air) with its very composition.
- Al-Nar (Fire) with all its qualities.

Al-Arz: The earth is an element normally situated at the centre of all existence. In its nature it is at rest, and all others naturally tends towards it, at however great a distance away the might be. This is because of its intrinsic weight. It is cold and dry in nature. It is by means of the earthy element that the parts of our body are fixed and held together into a compacted form; by its means the outward form is maintained (3).

Al-Ma: The water is a simple substance whose position in nature is exterior to the (sphere of the) Earth, and interior to (that of) the Air. This position is owing to its relative density. In nature it is cold and moist. Its purpose in (the world of) creation lies in the fact that it lends itself readily to dispersion, and consequently assumes and shape without permanency. In the construction of things, then, it provides the possibilities of their being moulded and spread out and tempered. Being moist, shapes can be readily fashioned (with it) and as easily lost (and resolved). Dryness on the other hand, permits forms to be assumed only with difficulty, and they are resolved with similar difficulty. When dryness and moisture alternate, the former is overruled by the latter, and thus the object is easily susceptible of being moulded into a form; whereas if the moisture were overruled by dryness; the form and features of the body would become firm and constant. Moistures serve to protect dryness from friability; dryness prevents moisture from dispersing (3).

Water has especially a life giving power, since many animals originated in water, and the seed of all animals is liquid. Quran (18.45) shows that water enters into the plants, and only as long as it is there to they live. The parable of the life of this world: like water which we send down from the cloud so the herbage of the earth become luxuriant on account of it : (working Translation)

min assama fa khatalatabihi. mingled with- or, as one may paraphrase (cf. the sevenfold interpretation of the Quran): water is the channel of life ; and note that the water come from the cloud, to which it was itself drawn by the solar heat (3).

Water may be understood here in the sense of radical moisture (Paracelsus), which is absolutely essential to life. H₂O being thus as it were an instrument for substrate. The plant cannot shoot out leaves, flower and fruit without it; so man cannot thrive without this radical moisture, or innate moisture. Moreover, on this view, the moisture is conserved by a medium which has material humidity a concept which brings us to the domain of chemistry. The watery nature may be called fluid nature; pliability; living character (3).

Al-Hawa: Air is a simplest substance, whose position in nature is above the sphere of water, and beneath that of Fire. This is due to its relative lightness. In nature it is hot and moist, according to the rule which we have given. its effect, and value, in (the world of) creation is to rarefy, and render things finer, lighter, more delicate, softer, and consequently better able to move to the higher spheres. The air-element, entering into the breath. Is that which enables us to stretch and contract, and also makes possible the involuntary movements throughout the body (3).

Al-Nar: Fire is a simplest substance, which occupies a position in nature higher than that of the other three elements. All thing return to it. This is because of its lightness. In nature it is hot and dry. The part it which it plays in the construction of things is that it matures, rarefies, refines, and intermingles with all things. Its penetrative powers enable it to traverse the substance of the air; by this power it also subdues the sheer coldness of the two heavy cold elements; by this power it brings the elementary properties into harmony (3).

This theory is most criticized for its contents in present scenario. But critics hardly think of the spirit of theory. They simply criticized its wording without context and relation in which it was proposed. The very first word which drawn maximum attention was simplest in this theory and we always put it for matter while it is for

status. This word is supplied for elementary participation of the Arkan in origin and continuation of life (4).

By the words earth and water primary matter itself is signified and not literal water or earth. The ancient material philosophers maintained that primary matter was some corporeal thing in act, as fire, air, water, or some intermediate substance. Corporeal matter was impressed with the substantial form of water, and with the substantial form of earth. The power possessed by water or earth of producing all animal resides not in the earth and water themselves, but in the power originally given to the elements of producing them from element matter (3).

The four elements cannot be assigned to literal matter. But they cannot be assigned to form either, as they have no being until literal matter has itself come into being. Two exist because of the one, but hold not even to this one. For example Paracelsus says humidity is not an element of water, or burning an element of fire. An element is not to be defined according to body, substance, or quality. What is visible to the eyes is only the subject or receptacle. Fire which burns is not the element of fire as we see it, the element of fire can be present in green wood no less than in fire (3).

Next objection is on number of Arkan, while the number of elements is increasing (according to modern theory of Element), but this number is freezed since long. Modern theory of elements deal with environment whereas, theory of Arkan deals with living body and life. Thus the role of increasing number of elements in origin and continuation of life should be taken into consideration while, attempts are made to assimilate the present elements theory into concept of Arkan. The four Arkan are maximum, not essential for the origin of creatures namely animals, plants and non-living (minerals) (4).

In the process of evolution, compounds formed by interaction of arkan were not stable and thus reacted themselves forming more and more complex molecules which led to emergence of life. Quran describes evolution of life from water which indicates that the liquid medium provided suitable environment for reactions in between the molecules. During this process, which might have taken millions of years, organic molecules may have

formed which ultimately led to eruption of life in the sea (1).

There is no philosopher who emphasized over any component of Earth, Water or Air separately and individually. Every one suggested their involvement as a whole i.e., Earth and Water with all its contents, Air with its all composition and Fire with all its Qualities. No doubt Hararat (fire) is causative for myriad action and reaction are concerned with metamorphosis (change). There is hardly any form of living or non-living which is lacking the involvement of Arkan in their genesis.⁴ So far as living things are concerned they all are dependent on Arkan for their survival and evolved from them (4-6)

As it was evident that when component of earth is mixed up with water, the mixture could easily be moulded into any desired shape, when blown with air, hollowness could be created, and by the influence of fire various things were seen changing their nature (1,3).

The most substantiating experiment for validation of theory of Arkan was that of Stanley Miller experiment, in which he created the conditions similar to primitive environment. In his experiment he produced electric arch for heating, boiled water in presence of organic and inorganic gases and let it for weeks, at last on cooling he could see spherical aggregation of some component floating or suspended in water, he also observed a change in color of water. These spherical bodies (tiny spherical droplet of assorted organic molecules-specifically, lipid molecules) were called as coacervate and are considered precursor of the first cell, though, coacervate were far away from cellular specification and character.

Simply this experiment paves the way toward the synthesis of proteins and more rightly prove the participation of water and fire in origin of life. Were the speculation had been absolute simulation would have given rise the exact bio-molecules? There was some lacuna and now theories of origin of life are based and rotate around this speculate and experiment.

When any one thinks of animal or plant, what is observed that; some animal and plant are aquatic and others are terrestrial, some are aerobic other is anaerobic.

Thermophilic and micro thermophilic words have been coined for Arkan related characters. On analysis of animal or plant; no one can obtain any thing unrelated to Arkan (1). Irrespective of how the first time life came into existence, after that every form of life lives are directly or indirectly depend upon Arkan.(4) Now it has been evident that impurity of Arkan may obstacle smooth running of life and sometimes ceases to continue (4). Till date scientist could not find any such form of life which is independent of Arkan.

Physico-chemical properties of Arkan are essential for life and its continuation. Therefore, any sort of analysis of any Arkan would not furnish its life giving properties. For example analysis of water into its component hydrogen and oxygen would not provide fluidity and solubility property. Similarly air, with its very composition is beneficial and essential for life; therefore any change in composition of air would have adverse effect on continuation of life. That's why nowadays a lot of resources are spent on water, air and soil purification. If these were of no utility than what was the need of such global efforts? Pure Hydrogen and Oxygen could be supplied in pure form in cylinder!

Whatever grows is of the element of fire, but in another shape. Whatever is fixed is of the element of earth. Whatever nourishes is from the element of air, and whatever consumes is from the element of water. Growth belongs to the element of fire (innate heat), where the element fails, there is no increment. Except the element of earth supplied it there would be no end to growth. This fixes it; that is to say, it supplies a terminus for the element of fire. So, also, unless the elements of air were to act, no nutrition could be brought about, by the air alone all things are nourished. Again, nothing can be dissolved or consumed unless the element of water be the cause (3).

The entire Greco-Arab philosopher said that all types of diets are derived from soil (Arz), and thus all animal depends upon some sort of diet and this ultimately derived from plant which are direct derivatives of soil.

In this way when we try to validate this theory; we should keep in mind that this theory was formulated to

explain the origin and continuation of life, and any sort of correlation should be based on this ground and role of correlated thing should be analyzed in this context and relation.

METHODS

All the classic and relevant books of unani system of medicine were studied; the literature and claims in support of this article has been taken from them. For the search of these books author visited following four libraries, namely (a) Library of Allama Iqbal Unani Medical College (AIUMC), Muzaffarnagar, Uttar Pradesh, India (b) Library of National Institute of Unani Medicine (NIUM), Bangalore, India (c) Departmental Library of Ajmal Khan Tibbia College & Hospital, Aligarh Muslim University (AMU), Aligarh, Uttar Pradesh, India and (4) Maulana Azad Library of Aligarh Muslim University (AMU), Aligarh, Uttar Pradesh, India.

CONCLUSION

Since there were numerous things around which needed to be justified in their existence on the basis of their observation based on the theory of Arkan (we would now call them component instead). Now it is evident that there is no form of life on earth which is independent of Arkan. So there is time to look behind and re-evaluate this basic theory (Theory of Arkan) which addresses the concept of origin and continuation of life in very simple but rational manner centuries ago.

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