

OSMOSIS AND DEALING WITH TOXICITY IN THE PROPHETIC MEDICINE

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ABSTRACT

This study addresses one of the scientific discoveries, which is the Osmosis as well as some scientific facts relating to the subject matter of the study- plasmolysis, cellular transport, facilitated diffusion, sound, temperature- The study also addresses the prophetic medicine in dealing with the case of toxicity; and thus illustrating that the Islamic Sharia with all its regulations benefit the humanity as a whole, including the medical aspect. Throughout this study, we will connect between the scientific domains and the procedures done by the prophetic medicine as well as demonstrating the extent of correspondence between them- the scientific domains and the procedures done by the prophetic medicine in this study- by taking gradual steps in introducing the nature of Osmosis and addressing the way how to deal with toxicity in the prophetic medicine. The study showed in dealing with toxicity in prophetic medicine pursuing modern scientific concepts in dealing with toxicity within the potentials available at that time; and this urges us to use prophetic medicine in the medical research.

Key words: the prophetic medicine, toxicity, osmosis, cupping.

Introduction

The scientific discoveries subsequent to the prophetic medicine indicate, from time to time, scientific aspects in the prophetic medicine that were not known at that time, one of the cases that manifest these scientific aspects is related to dealing with toxicity in the prophetic medicine; therefore, this topic was addressed to show the extent of correspondence between the prophetic medicine with the scientific facts in this case. The study importance lies in the fact that the Islamic Sharia seeks to keep the bodies healthy, and that is evident in all its regulations, including the medical prophetic aspects that are useful for all the humanity. The study problem lies in showing the match between the modern medical procedures and the scientific discoveries from the one hand and the prophetic medicine from the other hand, and that there is no conflict between them by addressing the topic of toxicity and treating it in prophetic medicine. The study demonstrates the usage of prophetic medicine for subsequent scientific discoveries in dealing with the toxicity.

The research consists of two requirements, and a conclusion with what it contains from results and recommendations. The first requirement addresses the nature of osmosis, it consisted of two parts: the definition of osmosis, and the transmission by the difference in concentration, while the second requirement addresses dealing with the toxicity in the prophetic medicine, it consisted of three parts; dealing with toxicity with cupping, dealing with toxicity with salty solution, and dealing with toxicity with Roqia.

The nature of osmosis

The definition of osmosis

The osmosis is the spread of the solvent across the a semi-permeable membrane due to the difference in the concentrations, where the direction of transmit is from the side of high concentration to the side of low concentration to the point that creates equilibrium between the two sides of the membrane (Richard, 1980, p 126, 127; Yaroshchuk,2017), and the increase in pressure on the solution, where the solvent won't tend to pass through the semi-permeable membrane is called the osmotic pressure (Gordon, 1983, p 419).

Transmission by the difference in concentration

Every cell is surrounded by a membrane, and these membranes aren't permeable to all the materials, i.e., it is semi-permeable. In general, these membranes are permeable to for the small-sized molecules, that don't hold electric charges which tend to melt in lipids. One method by which the materials transmit across the cell membrane is called the cellular transport, where the materials transmit from the side of high concentration to the side of low concentration, in addition to the facilitated diffusion, which depends on the existence of a carrier for the transmitted material and the transport is from the side of high concentration to the side of low concentration (Richard, 1980, p 123-134), in addition to the osmosis (Ibrahim, 1999, p 104).

Water constitutes about 70% of the cell; about 95% of that water exists in the free form and about 5% of it exists in a correlated manner. When we put cells, such as the red blood cells in a medium of water that has a concentration less than the concentration inside the red blood cells, that leads to the transmission of water inside the red blood cells according to the osmosis, causing an inflation in the cell and consequently, exploding it in the case that water continues in transmitting inside it, the opposite case takes place when we put cells, such as the red blood cells in a medium that has a higher concentration from that inside the cell, where water is released from the cell to the surrounding area and consequently it is contracted and this phenomenon is known as plasmolysis (Ibrahim, 1999, p 62, 104, 105).

We can find the applications of the osmosis in the blood capillaries; when the blood transports across the arteries coming from the heart to the blood capillaries is full of oxygen, and thus there would be a process of exchange for gases, liquids, and the other materials through the membranes of the blood capillaries between the blood in the blood capillaries on the one hand and the interstitial fluid, in which all the cells of the body swim on the other hand. The exchange process takes place based on the hydrostatic pressure at the end of the arterial branch and that leads to pressing the water and the dissolved material outside the blood capillaries to the interstitial fluid that surrounds the blood capillaries which the cells swim in, and this process by itself leads to releasing the water and the small-molecule dissolved material from the blood, while the protein remains as large molecules in the blood with the existence of little release of the blood protein to the interstitial fluid due to the high hydrostatic pressure in the blood capillaries, and this protein is removed by the lymphatic system and the tissues surrounding the blood capillaries become full of water and that makes danger; however, the emergence of difference in the osmotic pressure between the high-density blood due to the protein inside the blood capillaries from one hand and the interstitial fluid from the other hand and this leads to reversing the water across the membrane of the blood capillaries which are semi-permeable to the blood capillaries (Richard, 1980, p 662-669).

As for the small intestines, we find an application for the facilitated diffusion from the area of high concentration to the low concentration in a rapid way by a transmitter that exists on the membrane which transports glucose and fructose to the blood (Richard, 1980, p 134; Soleimani, 2011; Douard & Ferraris, 2013).

Dealing with the toxicity in the prophetic medicine

Dealing with toxicity with cupping

There are too many Hadiths from the messenger (peace and blessings of Allah be upon him) that urges us to do cupping and indicate that it is a medicine, in general, for too many diseases as follows:

Narrated by Ibn 'Abbas, The Prophet (peace and blessings of Allah be upon him) said, "Healing is in three things: cupping, a gulp of honey or cauterization, (branding with fire) but I forbid my followers to use cauterization (branding with fire)" (Al-Bukhari, 1422 H, p 123, Hadith No 5681).

Narrated by Anas, The Prophet (peace and blessings of Allah be upon him) said: "The best medicines you may treat yourselves with are cupping and sea incense" (Al-Bukhari, 1422 H, p 125, Hadith No 5696).

Narrated by Suhaib, The Prophet (peace and blessings of Allah be upon him) said: "Use Hijamah (wet cupping) on the Qamahduwah (above the nape cavity), for it cures seventy two kinds of ailments as well as five cures from Madness, leprosy, albinism and toothache" (Al-Tabari, p 36, Hadith No, 7306; Al-Asfahani, 2006, p 365).

This is evident when we know the lymph vessels absorb the protein that is released to the interstitial fluid from the blood capillaries due to the hydrostatic pressure in these blood capillaries, the lymph vessels also absorb the additional interstitial fluid, and thus maintains the balance of the body liquids (Richard, 1980, p 669, 670). When there is an obstruction in the lymph vessels, disease occurs. The Prophet (peace and blessings of Allah be upon him) pointed out these obstructions as the bad mixings (Al-sayid, 2005, p 324). The oldest people in the field of cupping also showed that it is beneficial in case of obstructions and other diseases (Ibn Battal, 1423H, p 402). The German scientists concluded that the Qamahduwah (above the nape cavity) that the Prophet (peace and blessings of Allah be upon him) recommended to use cupping in it, which is a cure of seventy two ailments is, indeed, a pathway of seventy two hormones that come from the pituitary gland to the other glands in the body and the endocrine gland (Al-Sayid, 2005, p 326, 327).

We find that there is a difference regarding using cupping at Qamahduwah (above the nape cavity); since a certain group advocates that while another doesn't, such as Ahmad ibn Hanbal who used cupping, but he didn't use it in Qamahduwah (above the nape cavity) and Ibn Sina who didn't support cupping in this area too, while others said that it is used when necessary, proving that the Prophet (peace and blessings of Allah be upon him) used it (Al-Jawzi, 2002, p 42, 43).

This illustrates that there are two attitudes regarding the belief in the prophetic medicine. One of them considers that the Hadiths of prophetic medicine aren't related to God's revealing, a point of view expressed by Ibn Khaldoun, (Ibn Khaldoun, 1988, p 651), and another attitudes that considers the prophetic medicine as revealed by God, a point of view expressed by Ibn Al-Qayim Al-Jawzi (Al-Jawzi, 1992, p 35, 36).

The most likely perspective, only God Knows, that the prophetic medicine is revealed by God, and this advocates the point of view of Ibn Al-Qayim Al-Jawzi, and this is also supported by the scientific discoveries every day in medical affairs that the Prophet (peace and blessings of Allah be upon him) wouldn't know at that time.

The white blood cells, particularly a certain kind that the scientists referred to as (Al-Konnas) scavenger-fossoyeur due to their role in cleaning the body of the strange objects that attack it, and so this labeling match with God's verse "So verily I call to witness the planets - that recede * Go straight, or hide" (Surat At-Takwir, verses: 15, 16), this is also done by the red blood cells, as they rid the body of carbon dioxide, which is also considered as wastes, and these red cells are from the scavenger-fossoyeur. Also, all the invisible things in the universe do the task of cleaning, such as the black Hole-Trou Noire which clean the galaxies from the remains of stars (Al-Sharif, 1999, p 328-331).

If we returned back to cupping, we note that it rids the body from the bad mixings and cleans it from them in certain mechanisms that science still discovers their secrets; doesn't that apply to God's verses: "So verily I call to witness the planets -

that recede * Go straight, or hide"; (Surat At-Takwir, verses: 15, 16), as God doesn't swear of anything unless it is too important and the prophetic Hadiths indicate the importance of cupping.

Ibn Abbas said: a Jewess presented the Messenger of Allah (peace and blessings of Allah be upon him) with a roasted sheep which she had poisoned. So, he (the Prophet) sent for the Jewess (and said to her): What motivated you to do the work you have done? She said: If you were a prophet, it would not harm you; but if you weren't, I should rid the people of you. The Messenger of Allah would use cupping if he experienced any harm of that; Ibn Abbas said: "he once he travelled for pilgrimage, and felt some pain of that, and so he used cupping" (Ibn Hanbal, 2001, p 6, Hadith No, 2784).

Narrated by Abi Salama, said, the Prophet (peace and blessings of Allah be upon him) said in his ailment that led to his death "I continued to feel pain from the morsel which I had eaten at Khaybar..." (Abo Dawood, p 174, Hadith No, 4512).

Cupping is the best way to treat the toxicity and getting rid of the poison out the body in case there is no medication; since poison flows with blood and reaches the heart, and consequently leads to death, the Prophet (peace and blessings of Allah be upon him) used cupping in the area of shoulders, which is the nearest site to the heart where we can use cupping in order to take the toxic material with the blood out of the body; this method was used from the nearest site of the body due to the stability of the toxic material. (Al-Jawzi, 2002, p 90, 91, 96) there are poisons that dissolve in water and is taken out with the urine, and there are also poisons that dissolve in the lipids and so they maintain in the body for a longer time (Hamza, 2003, p 48).

The Hadith which states that "I continued to feel pain from the morsel which I had eaten at Khaybar..." (Abo Dawood, p 174, Hadith No, 4512) confirms the stability of the toxic material- as its remains are still exist- the stability of the toxic material is also confirmed by the mechanism used with that which is known as the process of sucking, but not attraction.

When there is toxicity through the digestive channel, then we can deal with that by preventing the absorption of poison by the intestines by many ways, including vomiting, which is useful in the first 2-4 hours from the occurrence of toxicity (Hamza, 2003, p 60-62), most of the materials that dissolve in water are absorbed in the small intestines directly in the blood flow, in the large intestines, water and salts are absorbed from the indigested food that comes from the small intestines (Richard, 1980, p 648-653). absorbing toxics from the digestive channel easier than absorbing it by the skin since most the chemicals are absorbed in the small intestines (Hamza, 2003, p 43).

Therefore, we find that the Hadiths narrated in the case of toxicity without mentioning cupping in it don't conflict with those that mentioned cupping; as cupping was used after the stability and absorption of the toxic material.

Dealing with the toxicity using the salty solution

Ali said: while the Prophet (peace and blessings of Allah be upon him) was praying one night, he put his hand on the ground and he was stung by a scorpion. The Messenger of Allah (peace and blessings of Allah be upon him) hit it with his shoe and killed it. When he left, he said: "may God curse the Scorpion, Then he requested some salt and water, put it in a container, and then he poured that on his finger, at the site of the sting and clears it while reciting the two Verses of Refuge (Al-Baihaqi, 2003, p 196, Hadith No 2340).

When a living being is exposed to a toxic material, a reaction occurs between the living being and this toxic material, which leads to the emergence of disease symptoms called toxicity (Abdulatheem, et al, 1990, p 43), the scorpion's poison is more dangerous than the snake's poison to Man. The symptoms of that are pains in the site of the sting, inflammation, an increase in the skin's temperature as well as a redness in the site an increase in the blood pressure, lack of breathing, and losing consciousness that could be followed by death (Abdulatheem, et al. 1990, p 146, 147). The general procedures taken to deal with the cases of toxicity are releasing the toxic material and stopping the absorption of it, putting cold water poultices on the place of the sting in the first hours would decrease the absorption of poison (Al-Qammaz, p 89, 254), getting rid of the toxic material is considered as a procedure that is used to treat the toxicity, which is represented by such ways as increasing the release of urine by using vein injections that increase the liquid outside the cells and subsequently increases the release of urine, in addition to dialysis which is based on the characteristic of the optional permeability of the membranes from the high-concentration medium to the low-concentration medium, getting rid of the toxic material depends on the characteristics of the toxic material, such as the extent to which it is connected to the liquids of the body and the size of its distribution as well as its transmission across the membranes (Al-Qammaz, p 93-96; Abdulatheem, et al, 1990, p 216, 217).

The skin is composed of many layers of cell, such as the derma which is non-permeable for many toxics, but it permeates them in case that these toxic material of a small molecule weight, not ionized, and dissolve in lipids (Hamza, 2003, p 42), the mechanisms of transmitting the toxics across the membranes the cellular transport which is easier as the molecule weight is smaller and with more permeability in lipids and not ionized; it is transmitted in a way that depends on the difference of concentration across the membrane, where the entrance continues until there is a balance of the two concentrations on the two sides of the membrane (Hamza, 2003, p 41; Abdulatheem et al, 1990, p 211).

Therefore, it is clear that using the salty solution to treat the toxicity in the prophetic medicine gathers between reducing and obstructing the absorption as well as releasing the toxic material, water cools the organ and reduces the flow of blood to the stung organ, and thus obstructs the spread of blood to other parts of the body, adding salt to water makes the medium surrounding the fabrics, which are cells, as a medium with high concentration and consequently attracts the toxic material towards the flow of water based on the osmosis, in addition to that some toxic materials permeate from the skin if they have small size, not ionized and permeable in lipid by the cellular transport.

Dealing with toxicity by Roqia

Ali said: "...Then he requested some salt and water, put it in a container, and then he poured that on his finger, at the site of the sting and clears it while reciting the two Verses of Refuge (Al-Baihaqi, p 196, Hadith No 2340)."

Sounds, such as reciting the Holy Quran have an impact on the living beings and inanimate objects; many experiments were conducted that prove the positive impact of Quran either on the plants and their growth or on Man and the physiological changes, including the skin temperature, the blood circulation, heartbeat, blood pressure ...etc. (Al-Obaidi, 2001, p 635, 636) there are many verses in Quran that illustrate the impact of sound, including: " Or like a rainstorm from the sky, wherein is darkness, thunder, and lightning. They thrust their fingers in their ears to keep out the stunning thunderclap for fear of death. But Allah ever encompasses the disbelievers "(surat Al-Baqara, verse,19) ", The Day when they will hear a (mighty) Blast in (very) truth: that will be the Day of Resurrection", (Surat Qaf, verses: 42) "... be not too complacent of speech, lest one in whose heart is a disease should be moved with desire: but speak ye a speech (that is) just", (Surat Al-Ahzab, verse, 32) "Then, when one blast is sounded on the Trumpet* And the earth is moved and its mountains, and they are crushed to powder at one stroke* On that Day shall the (Great) Event come to pass* And the sky will be rent asunder, for it will that Day be flimsy", (Surat Al-Haqqa, verse, 13-16) " They will not (have to) wait for aught but a single Blast: it will seize them while they are yet disputing among themselves" (Surat Yaseen, verses 49), and " The trumpet shall be sounded, when behold! from the sepulchres (men) will rush forth to their Lord" (Surat Yaseen, verse, 51).

Therefore, after all these proofs and experiments for the positive impact of Quran on Man and the existence of Quranic indicators for the impact of sound, we can't deny the impact of Roqia on treating the toxicity, even though we don't know it.

Conclusion

It is a number of results and recommendations.

The results:

- 1- the prophetic medicine was based on some compositional characteristics for the materials by gathering more than one material in treatment such as dealing with the toxicity resulting from sting.
- 2- Obstructing the absorption and spread of toxic material in the prophetic medicine, it is one of the currently used procedures in dealing with toxicity, where water is used for cooling and the medium surrounding the sting was made of a high concentration to attract and that is known as osmosis.
- 3- Releasing the toxic material is one of the procedures followed currently to deal with the toxicity, where the cupping was used to get rid of the toxic material.
- 4- Knowledge of the prophetic medicine that some poisons stay in a long time in the body, these that dissolve in lipids and so cupping was used from time to time.
- 5- Depending on Roqia with Quran to deal with toxicity, which corresponds with the scientific discoveries that prove the impact of sound on material, including the impact of Quran on the human body.
- 6- Releasing the material by cellular transport in case that the toxic material permeates from the cellular membrane using a salty solution with high concentration in dealing with toxicity by sting in the prophetic medicine.
- 7- The prophetic medicine relates to God's revealing and this belief is supported by the scientific discoveries over time in medical things that weren't known at that time.

Recommendations

Making advantage of the medical prophetic Hadiths when conducting medical research so as to reduce effort and time in case the truth of referring them to the prophet (peace and blessings of Allah be upon him).

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