

MICROBES

WHEN WERE THEY FIRST DISCOVERED AND BY WHOM?

Microbes are the very tiny creatures not visible to the human eyes unless with the aid of a microscopic instrument. They exist in millions around us in water, land and air. It is said that certain microbes are so minute that one square of an inch can accommodate as many as 400 millions of them, yet still invisible to the naked human eye.

According to Encyclopedia Britannica, the first microscope to be invented was by Zachariass Jensenn, a Dutch, during 1590 A.D. It was not until the 16th and 17th centuries that this instrument could really be developed enough as to make it possible for human eyes to see and establish the existence of various microbes.

Medical history tells us that it was during 1881 A.D. that the French doctor Louis Pasteur first discovered the existence of minute germs of contagious disease like the plague and others which spread through the air from those who suffer. He was followed by a German doctor Koch who in 1883 first discovered the cholera germs. Subsequently it was discovered by the medical science that various infectious diseases spread through unhealthy food or unclean water.

Arising out of the above facts, one may venture to ask if it meant that prior to these discoveries of various microbes liable to cause dangerous diseases, were people in the world not aware of their existence? If they were, how did they come to know and from whom ?

When one studies the authentic traditions and supplications related by the Prophet of Islam and his rightful vicegerents more than a thousand years ago, one is fascinated by the way they touched intricate subjects. To thousands of their disciples, despite the hard times they were facing, they took every opportunity in expounding upon various sciences and secrets of Nature. History makes no mention of any scientific instruments or any kind of aid at their disposal then, yet they were able to explain the existence of tiny creatures the microbes as existing but invisible to human eyes. They had also warned people of their danger to human health.

THE EIGHT IMAM ON EXISTENCE OF MICROBES

One of the attributes of Allah is LATIF, the basic meaning of which is fine - subtle, so fine and subtle that it is beyond the perceptibility of human sight or imagination. Allah is certainly a Creator of fine tiny things as well as minute germs not visible with the naked human sight.

Latif also means inconceivably pure, kind and gracious. When we say Allah is Latif with His creatures, we also mean he is so kind and gracious as to give His mercy and grace unasked for.

In the course of expounding on the meaning of Latif as one of the attributes of Allah, the eight Imam Musa Al Ridha A.S. addressing one of his disciples is reported to have said:

"Oh Fathil Allah can be addressed with the attribute of LATIF because He has made very tiny and minute creatures and is All-aware of them (of their existence and needs).

"Oh Fathil May Allah grant you ability and steadfastness in the course of studying the secrets of creation. Are you not able to see the secrets vested in the creation of tiny and non-tiny grass ? And similarly the secrets of nature in the creation of tiny animals like small insects, flies and those who are more tiny and minute to the extent that they are non-visible to human eyes."

The last sentence of the above tradition obviously refers to the microbes and germs. The Imam lived during 765-818 A.D. when certainly neither scientific instruments existed nor did the human knowledge had reached that stage of having any idea about the existence of unseen creatures. From where then did he derive the knowledge?

THE FOURTH IMAM ON INFECTIOUS DISEASES THROUGH FOOD AND WATER

Imam Zainul Abedeen(a.s) in the course of his prayer for those who guarded the borders of Islamic countries cursed the infidels and enemies of Islam posing danger of incursion in these words:

"Oh Lord mix their waters with pestilence (contagious disease) and their foods with diseases".(Sahifa Kamila dua #27)

So long as modern scientific instruments were not invented, one perhaps would not understand the above words which indicated the possible existence of contagious and dangerous germs in food and water. However it is now an accepted fact by medical men that diseases like plague and cholera do spread through infected food and water.

THE FIRST IMAM ON EXISTENCE OF CREATURES IN WATER

The first Imam Ali a.s is reported to have said:
“In water some creatures exists and do not disturb them by urinating and passing stool inside it”

This tradition obviously indicates the existence of germs and minute creatures whether visible or not, the knowledge of which was cherished by the Imam in those old days when scientific research had not even commenced.

A number of other valuable traditions could be quoted from the Imam and one becomes fascinated with their knowledge of various sciences and secrets of nature. But wherefrom did they derive this knowledge? The holy Qur’an provides some guidance on this question where it says:

“He (Allah alone) knows the Unseen, nor does He make anyone acquainted with His mysteries except an apostle whom He has chosen”
(Sura Jinn v.26-27)

Thus the knowledge of the mysteries of creation was communicated to the apostles of Allah and our Prophet Muhammed a.s had the most of it. The twelve who were the rightful vicegerents derived and inherited this knowledge from the Prophet. They were the treasurers and guardians of divine secrets.

THE SIXTH IMAM ON THE EXISTENCE OF MICROBES

In reply to a question by Jabir bin Hayyan, one of his prominent disciples, Imam Jaffer Sadiq A.S. mentioned three kinds of human illnesses and their causes:

Firstly: Illnesses like the old age (inflicted by Allah Himself from which no one can escape).

Secondly: Illnesses caused by people themselves out of their ignorance or caused by fulfilling their inner desires (by excesses in eating and drinking habits etc) although such illnesses could be avoided by following divine guidance of controlled eating and drinking within limits.

Thirdly: Illnesses caused by the enemies of human body (the microbes). When they attack the body, man is able to defend himself by the natural means he has within himself. But when those means become less and weaker in proportion to the extent of the attacking enemies of the body, he falls sick.

Jabir then asked the sixth Imam what he meant and who are the enemies of the human bodies. Imam explained that they are the minute creatures (the microbes) so tiny as to be invisible to human eyes (without an instrument). And the human body also has within itself tiny invisible creatures (known as white cells by the medical science) which protect the body against attack of the enemies (the microbes and disease germs).

On request for further elaboration on the subject, Imam explained that these enemies of human body (the microbes) are of numerous kinds the same is the case of those protecting the human body. But those causing the formation and growth are but only limited in number. Jabir could not understand this point and asked for clarification. Imam further explained by giving an example of a book we read having thousands of words each composed by joining a few letters. But these letters are very few in number though with their help we are able to write thousands of words each having a meaning of its own. The enemies of human bodies and those protecting them (the microbes) are like thousands of words in a book but their formation and growth is out of a limited quantity of matter.

LEPROSY INFECTION FOREWARNED BY THE PROPHET

According to Encyclopedia Britannica, Leprosy is one of the chronic contagious diseases which affects human skins, eyes, membranes of the nose and throat. It was Girolamo Fracastoro who first discovered in 1546 A.D. and to declare this disease as contagious, spread by minute animate agents emanating from the patient. Medical science today also mentions that the skin and appearance of the leprosy patient is so badly affected as

to make his face disfigured and looking like the face of a lion. It is worth mentioning here that some 1400 years ago, the Prophet of Islam had forewarned the world to keep aloof from the leprosy patient to avoid infection as if one on seeing the face of a lion ran away to save his life. The Prophet is related to have said:

“KEEP AWAY FROM LEPERS IN THE SAME WAY AS YOU RUN AWAY FROM LIONS”

(Biharul Annwar)