

## LOIASIS IN UNANI MEDICINE

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*SUMMARY: Loiasis is a disease, which has been discussed in classical literature of Unani Medicine as ‘Illa al-Baqar. Unfortunately this fact has been intentionally or unintentionally ignored by historians and its discovery has been attributed to French surgeon, Mongin who lived during 18th century A.D. In this paper, related Arabic texts have been reproduced to claim that the first definitive record is that of Abū al-Qāsim al-Zahrāwī (d.1031 A.D.) who described the disease in his famous book Kitāb al-Taṣrīf with necessary details. Later, the disease was again discussed by Abū Marwān ‘Abd al-Malik ibn Zuhr and Amīn al-Dawla Abū al-Faraj ibn Ya‘qūb ibn Ishāq ibn al-Quff al-Karakī who lived in 12th and 13th centuries A.D., respectively.*

*Key words: Loiasis, Unani Medicine, ‘Illa al-Baqar, Kitāb al-Taṣrīf*

### INTRODUCTION

Loiasis is a parasitic infection caused by *Loa loa* and is limited to certain regions of tropical Africa, especially the equatorial rain forests and forest fringes in a narrow band of territory, stretching roughly from west to east between latitudes 10°N and 5°S. Intensely infected areas are Eastern Nigeria, Cameroun, Zaire, and some parts of East Africa (1). Adult parasites live in subcutaneous tissues and their microfilariae circulate in the blood with a diurnal periodicity that peaks between 12:00 noon and 2:00 P.M. (2).

Discussing the history of Loiasis, Cox says, “An engraving by J. and T. de Bry made in 1598 was at one time thought to depict the extraction of a worm from the eye, but this has been hotly disputed, and it is now thought that this particular engraving represents a punishment for some offense rather than a treatment. The first definitive record is that of a French surgeon, Mongin, who in 1770 described the worm passing across the eye of a woman in Santa Domingo, in Caribbean, and recounts how he tried unsuccessfully to remove it. There are, however, less detailed earlier records of similar cases in 1768 and 1777 in an account of the history of French Guyane and Cayenne by Bertrand Bajon. In 1778, a French ship’s surgeon, Francois Guyot, noticed that slaves in transit from West Africa to America suffered from recurrent ophthalmia and successfully removed a worm from one of them. The first English account of the removal of worms from the eye is that by William Loney in 1848; thereafter, there

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are increasing numbers of similar records. The microfilariae were discovered in 1890 by the ophthalmologist Stephen McKenzie and were sent for identification to Patrick Manson, who speculated that these might be the larvae of *Loa loa* (3). After going through the classical literature of Unani Medicine, we have found that *Abū al-Qāsim al-Zahrāwī* (d.1031 A.D.) was the first surgeon who identified the parasite and discussed the pathology and the treatment of this disease in his famous book *Kitāb al-Tasrīf*. In 12th and 13th centuries two other known surgeons of medieval period *Abū Marwān ‘Abd al-Malik ibn Zuhr* and *Amīn al-Dawla Abū al-Faraj ibn Ya‘qūb ibn Ishāq ibn al-Quff al-Karakī* discussed it in their books *Kitāb al-Taysīr* and *Kitāb al-‘Umda fī al-Jirāha*, respectively. The details of the disease, documented by these three surgeons are as follows:

In the 29th section of 30th part of his book *Kitāb al-Tasrīf*, *Abū al-Qāsim al-Zahrāwī* (d.1031 A.D.) while discussing the nomenclature of the disease says:

*As the disease occurs mostly in cows, therefore it is called ‘Illa al-Baqar in some of our neighboring cities (4).*

*Abū Marwān ‘Abd al-Malik ibn Zuhr* (d. 1162 A.D.) in his book *Kitāb al-Taysīr* says:

*Due to the frequent occurrence of the disease in cows, it is known as Dā’ al-Baqar (5).*

The modern research says that the adult parasites live in subcutaneous tissues (2). In this regard *Abū al-Qāsim al-Zahrāwī* (d.1031 A.D.) says:

*It is a small worm produced in between the skin and muscles (4).*

*Abū Marwān ‘Abd al-Malik ibn Zuhr* (d. 1162 A.D.) says:

In this disease a worm is produced in between the skin and the muscles (5).

*Amīn al-Dawla Abū al-Faraj ibn Ya‘qūb ibn Ishāq ibn al-Quff al-Karakī* (d. 1286 A.D.) says:

*It is a small worm produced below the skin and above the muscles (6).*

The latest findings say that the adults wander about the body in the tissue planes and from time to time may appear beneath the skin (1). *Abū al-Qāsim al-Zahrāwī* (d.1031 A.D.) says:

*The worm wanders in the body upward and downward and can be felt through touch during its movement from organ to organ until it punctures the skin and comes out of the body (4).*

*Abū Marwān ‘Abd al-Malik ibn Zuhr* (d. 1162 A.D.) says:

The worm wanders below the skin (5).

*Amīn al-Dawla Abū al-Faraj ibn Ya‘qūb ibn Ishāq ibn al-Quff al-Karakī* (d. 1286 A.D.) says:

*The worm wanders upward and downward in the body, and it can be felt during its movement from organ to organ. It punctures the skin and comes out of the body (6).*

Describing the signs and symptoms, the modern literature says that the movement of the worm across the conjunctiva that takes a few minutes is a characteristic feature of the infection (1). *Abū al-Qāsim al-Zahrāwī* (d.1031 A.D.) says:

*The complication occurs when the worm moves toward the head and reaches the eyes. It may puncture the eye and cause blindness (4).*

*Abū Marwān ‘Abd al-Malik ibn Zuhr* (d. 1162 A.D.) says:

*If ignored by the physician, the worm reaches the eye and may come out of it resulting in blindness (5).*

*Amīn al-Dawla Abū al-Faraj ibn Ya‘qūb ibn Ishāq ibn al-Quff al-Karakī* (d. 1286 A.D.) says:

*It may cause blindness if the worm moves toward the head, reaches the eyes, and punctures them (6).*

Discussing the treatment *Abū al-Qāsim al-Zahrāwī* (d.1031 A.D.) says:

Ligate above and below of the moving worm, incise the skin, and remove it. If the worm is deep in the muscles then use the hot cautery on the affected part till the worm is burnt. When you observe that the worm has reached the head and it can affect the eyes then ligate below the worm at the forehead and surgically remove it (4). *Amīn al-Dawla Abū al-Faraj ibn Ya‘qūb ibn Ishāq ibn al-Quff al-Karakī* (d. 1286 A.D.) has advocated the same treatment (6):

*Abū Marwān ‘Abd al-Malik ibn Zuhr* (d. 1162 A.D.) says:

*Keep a hot iron on the part where the worm is felt (5).*

Describing the preventive measures of the disease *Abū al-Qāsim al-Zahrāwī* (d.1031 A.D.) says:

*The affected person has to evacuate the putrid humors by purgatives and avoid the foods producing putridity in his body (4).*

*Amīn al-Dawla Abū al-Faraj ibn Ya‘qūb ibn Ishāq ibn al-Quff al-Karakī* (d. 1286 A.D.) says:

*The affected person and the person who gets affected at regular intervals has to purify his body from*

putrid matters, correct his diet, use steam bath regularly, and induce perspiration through body movements (6).

### CONCLUSION

From the above mentioned facts it can be concluded that *Abū al-Qāsim al-Zahrāwī* (d.1031 A.D.) was the first Arab surgeon who discovered Loiasis (*'Illa al-Baqar/Dā' al-Baqar*) and documented his observations and surgical treatment in his book *Kitāb al-Tasrīf*. Later, his observations were authenticated by *Abū Marwān*

*'Abd al-Malik ibn Zuhr* (d. 1162 A.D.) in his book *Kitāb al-Taysīr*. As far as, *Amīn al-Dawla Abū al-Faraj ibn Ya'qūb ibn Ishāq ibn al-Quff al-Karakī* is concerned, he has clearly mentioned that the cases of Loiasis were not found in his area and has confined him only to reproducing the quotes of *Abū al-Qāsim al-Zahrāwī* in this regard. On the other hand, during all these years, the Western world was in dark about this disease and it was only in 1770, when they started their research on Loiasis.

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