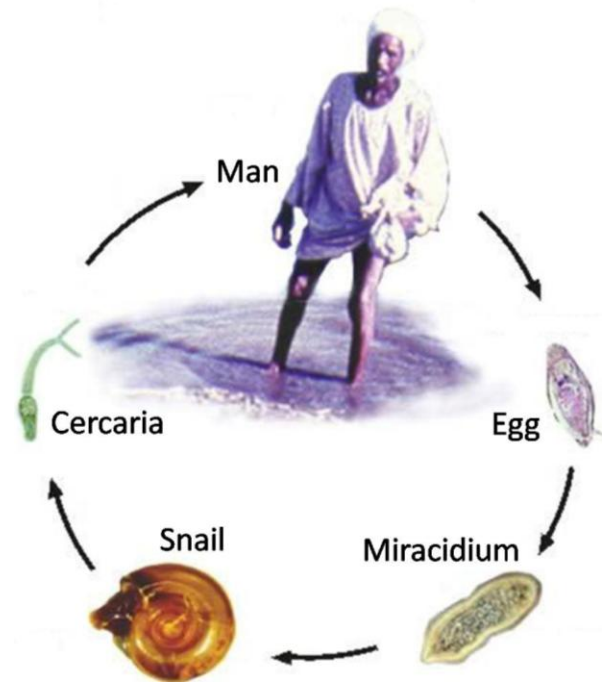


Egypt Blood Fluke Disease In the Bible and the Quran

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(1) Scientific Review:

In the stagnant water where the intermediate host snail lives; man is infected by the Schistosomiasis (Bilharziasis) parasite. The loaded parasite eggs during urination or defecation in the stagnant water complete the cycle. The illness is one of the most prevalent human parasitic infections. It was estimated that 97% of the infected cases are on the African continent¹. The urinary tract Schistosomiasis is more common, it is caused by the parasite *Schistosoma haematobium* (**Bloody Schistosoma**), the egg is terminally-spined, and the intermediate host is *Bulinus* snail. The main observed manifestation is the passage of urine mingled with **blood (hematuria)**, and the complications include urinary stones, renal failure, and cancer of the urinary bladder. The intestinal Schistosomiasis is caused by the parasite *Schistosoma Mansoni*, the egg is laterally-spined, and the intermediate host is *Biomphalaria* snail. It may happen without an observed blood in stool, and the complications include enlarged liver and spleen, ascites, esophageal avarices, hematemesis, anemia, and liver cell failure. Both types may be accompanied by severe debility and inability to do the usual work, and finally may lead to death.



(2) Present Egypt epidemicity:

The cause of the disease was unknown until the year 1851 when Theodor Maximillian Bilharz discovered the causative agent of hematuria. The parasite was described in 1856 as *Bilharzia haematobium* (**Bloody Bilharzia**) by Meckel von Hemsbach. In the year 1858 Weinland described the worm as *Schistosoma haematobium* (**Bloody Schistosoma**). Our knowledge of the history of intestinal schistosomiasis dates back to the year 1902 when Sir Patrick Manson discovered the lateral-spined eggs². In the year 1907 Sambon named the new species as *Schistosoma mansoni*³. It was not until 1915 that Robert Leiper demonstrated the complete life cycle of each *Schistosoma* in a certain snail host^{4, 5}. The snail occurs throughout the whole length of the Nile Valley in Egypt, in irrigation channels and drains, and in many places in the River Nile itself. It is especially common in the region of the Nile Delta, and also occurs in Sinai and the Baharia, Dakhla, and Kharga oases⁶. In the year 1856, Bilharz noted that schistosomiasis is one of the most frequent helminthic infections among Egyptians. He estimated that more than half of the adult populations of Egypt harbor the worm⁷. Dr. John Scott reported in 1937 that *S. haematobium* was the only species transmitted along the Nile Valley in Middle and Upper Egypt, south of Cairo, and both species of *Schistosoma* endemic in the Nile delta. The Egyptian Ministry of Health reported in the year 1955 that *S. haematobium* prevalence was 38% of population, with only 9% infected with *S. mansoni* in the Nile Delta⁸.

(3) Ancient Egypt epidemicity:

The eggs of *Schistosoma Mansoni* haven't found in ancient Egypt mummies, but this is not decisive that the illness was not present. But; the eggs of *Schistosoma haematobium* have been discovered in many ancient mummies^{9,10,11,12,13}. The actual epidemicity ratio is expected to be higher than the given one by the mummies assay, because mummification is restricted to higher classes and the illness should be more common among the working classes who were in contact with waters infested with the parasite like farmers or fishermen¹⁴. Hence it has been realized that the history of the urinary Schistosomiasis in Egypt is longstanding may be for over 5000 years. The hieroglyphic word AAA occurs in over 50 papyri including the Ebers papyrus dating 1500 B.C. and named after George Ebers who in 1862 found the paper in a tomb in Thebes; Egypt, and the papyrus of kahun (1900 B.C.); describing a prevalent debilitating illness in Egypt during the time of the pharaohs. The hieroglyphic word AAA is still used up today by the same pronunciation (أأه) in Present Egyptian villages by mothers with their small children to denote their complaint of a disease in general. In many papyri this word AAA is symbolized by a phallus dripping fluid. The phallus was used to represent the site of dripping in a contexts reveal a prevalent illness in the whole ancient Egypt community, excluding the sporadic cases of sexually-transmitted diseases like gonorrhoea, and suggesting that the discharge is **blood**. In some papyri this word AAA is accompanied by the description of antimony-based remedies, which is specific to Schistosomiasis, and small worms possibly of Schistosomiasis in the dead bodies by the disease¹⁵.



The Egyptian hieroglyphics from the Ebers Papyrus; written in 1500 B.C. representing the widespread AAA disease as a phallus dripping fluid which is thought to be blood.

Ebbell translated AAA to mean **haematuria** in 1937¹⁶. His interpretation was supported by Jonckheere in 1944 and Lefebvre in 1956¹⁷. Egyptologists also believe that AAA was in fact schistosomiasis¹⁸. Evidence of this comes from the Ebers Papyrus in particular, where passages connect AAA disease with **blood** in the urine. AAA is declared as deadly, that it was associated with worms, and also describes a remedy to kill worms in the body that cause the disease¹⁹. It is specific also that the papyri emphasize the prevalence of AAA disease in the ancient Egypt^{20, 21}.

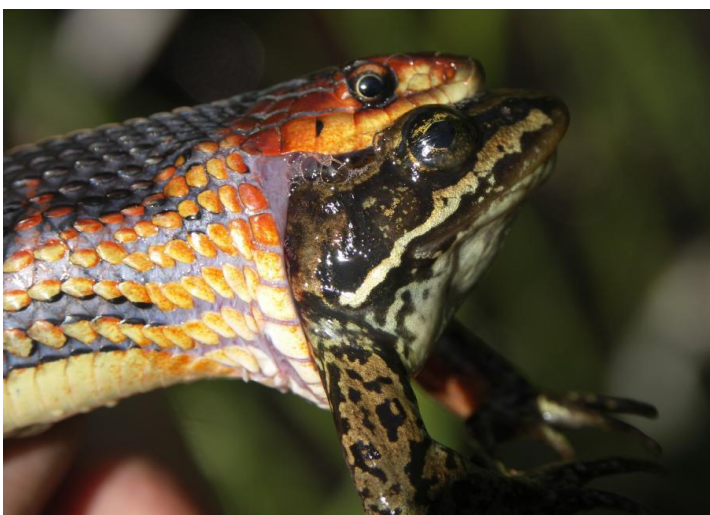
Ancient Egyptian physician was also a priest, so medicine has erroneous belief that diseases are effects of spiritual powers, and AAA is a magic, so evil will be driven away by incantations. It is also cited that; to prevent AAA people should avoid polluted water where the worm may live, and penile sheath should be cut off for cleanliness and to prevent its hide and ascending up in the urethra^{22, 23, 24}.

Furthermore, it has been discovered in tomb figures of ancient Egypt fishermen with enlarged abdomen; surely representing the pathology of the blood fluke disease or the chronic snail fever known today as Schistosomiasis. In 1910 Marc Armand Ruffer examined many mummies dating 1200-1000 B.C. and found calcified eggs of the blood fluke. Many snail fossils also have been discovered²⁵.

In brief; the recent findings conclude that the Schistosomia **haematobium** was almost certainly common and widespread in ancient Egypt, and because the main complaint is passage of urine mingled with **blood (hematuria)**; hence the word AAA has been interpreted by many authors as **blood** from the urination outlet (**hematuria**)^{26, 27, 28, 29, 30}; which is consistent with urinary Schistosomiasis.

(4) many living organisms refresh after the Nile inundation:

When Herodotus; the Greek historian, made a tour of Egypt in 400 B.C.; he wrote describing the inundation of the Nile: "The land all of Egypt becomes a sea and only the towns remain above water"³¹. The Nile was usually inundates in summer with harmful sequels also; the lakes and ponds of the stagnant water arise, and many living organisms multiply; like the hungry locusts flocks, the lice-like pests which are harmful on agriculture also, the frogs which are the palatable food for the snakes; hence the danger of snake bites, and the snails which are the intermediate hosts for the blood fluke disease.



The danger of snakes bites increases with increased frogs.



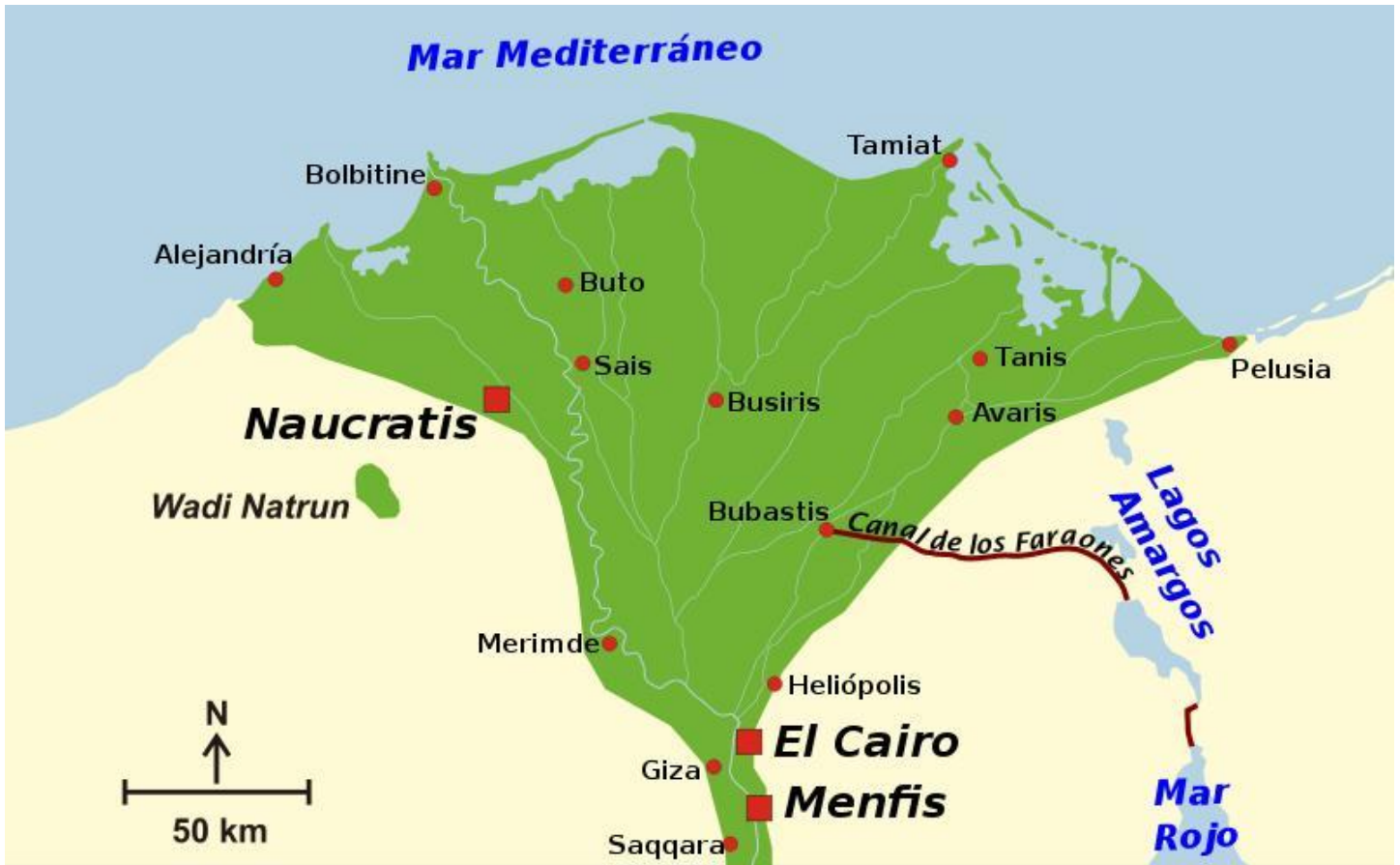
The Snails multiply with the Nile inundation.

(5) Blood Fluke disease in the Bible and the Quran:

The Bible should not be considered an archeological reference as the priests recorded the past event; neither as eye witnesses nor as a real history, but according to their religious view, hence sometimes the text should not be interpreted literally; but allegorically³². The Biblical plagues of Egypt during the time of the pharaohs were **ten** (increased attacks of locusts, lice, and flies, frogs, change of water into blood, the death of human firstborn, the death of cattle, boils, hail, and darkness); one of the plagues is the **change of the Nile water into blood**. Guided by the recent scientific findings this event may indicate the blood fluke disease, as the historical tradition records can be interpreted allegorically to mean that the human blood in the urine was so excessive that the main stream of the Nile itself changed into blood. The underlying simple fact is that there was a widespread disease in Egypt during the time of the pharaohs manifested by the passage of urine mingled with **blood (hematuria)**.

The Quran description is given briefly; but with a highly informative context. There were **nine** clear signs against the belief that pharaoh is god; five of which are selected in a context of the harmful effects of the inundation and its sequels on agriculture and man: "**So; We sent on them** (in excess): **the flood** (-like inundation), **locusts, lice** (-like pests), **frogs** (that snakes follow with increased danger on humans of their bites), **and blood**; (these injuries are) **clear signs** (of the Creator's Power that cannot be opposed by the Pharaoh who announced that he was a god)" 7: 133. The word "**blood**" in the context of the post inundation harmful effects by the flourished living organisms logically suggests the flourishing of a similar living organism in the stagnant water of the lakes and ponds following the Nile inundation causing a prevalent malady of man in the whole Egypt community manifested by a **blood discharge**, which is proved recently to be the snails and the malady to be the **blood fluke disease**.

The pharaoh of Moses may be Ramses II, who was named "**The Great**" and reigned from 1279 B.C. to 1213 B.C.³³, because the argument of Moses was that: no one is great except One; the Creator. Furthermore, the capital of Ramses II (Pi-Ramesse) was at a certain site where the Nile distributaries mouths were adjacent; and the pharaoh of Moses said in the Quran: "**O my people, do I not possess the kingship over Egypt, and these Rivers** (Nile distributaries) **flowing under me** (in Delta; the lower land)" 43: 51. The implied meanings of the text indicates that the power of Egypt was based on the Nile, the Delta was the most fruitful land, the capital city was at the beginning of Nile Delta, and distributaries of Nile were more than the present two; because the plural (Rivers) in Arabic means more than two.



Amazingly, it has been discovered that the Nile in the past had at least seven distributaries flowed across the Delta of Egypt with a huge network of canals belt, one of them was extending to the red sea (Sesostris canal; canal of Pharaohs). The position of the branches has been determined by the historical, geographic, archaeological, and remote sensing evidences³⁴. The embarrassing anachronism is that: before these recent discoveries no person can know these facts; **how then the truth was inspired!**

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