ClinicSearch

International Journal of Clinical Epidemiology

Konstantin Anatolyevich Bugaevsky *

Open Access

Research Article

Tropical Diseases: African Trypanosomiase in The Reflection of Philately Means

Konstantin Anatolyevich Bugaevsky *

The Petro Mohyla Black Sea State University, Nikolaev, Ukraine.

***Correspondence Author:** Konstantin Anatolyevich Bugaevsky, The Petro Mohyla Black Sea State University, Nikolaev, Ukraine.

Received Date: July 19, 2023 | Accepted Date: August 03, 2023| Published Date: September 14, 2023

Citation: Konstantin A. Bugaevsky, (2023), Tropical Diseases: African Trypanosomiase in The Reflection of Philately Means, *International Journal of Clinical Epidemiology*, 2(5); **DOI:**10.31579/2835-9232/033

Abstract

The article presents research materials on the issues of the fight against African trypanosomiasis, its heroes, doctors and research scientists who studied the transmission routes, clinical manifestations, diagnosis, treatment and prevention of "sleeping sickness". The research materials are presented in the reflection of philatelic materials of a number of countries of the world.

Key words: trypanosomiasis; philately; postage stamps; blocks; envelopes; medals; coins

Introduction

The study of the history of medicine, in all its aspects and details, is very relevant and in demand. This, in particular, directly concerns such important sections of modern medicine and biology as tropical medicine and parasitology. In this research article, the author of the conducted research, gives its results and their analysis, combining textual material with illustrative material, for which a new, creative method of illustration was used, using scans of a number of thematic screenshots of collectible materials, such as philately - postage stamps, envelopes, postal blocks, carto maximums.

Methods and organization of research.

When writing this article, the author used such methods as selection and analysis of relevant thematic and illustrative materials devoted to the study and treatment of such a formidable tropical disease as African trypanosomiasis. For this purpose, special thematic scientific and collection sites on the Internet dedicated to the issue under study were actively used.

Aim of the work

The purpose of this study and the research article itself is to identify, analyze and present the results of the research conducted to preserve the history of scientific research and its heroes-scientists, to identify, diagnose and treat such a serious tropical disease as African trypanosomiasis in such a means of collecting as philately, in all its diversity.

Results of the study and discussion

Human African trypanosomiasis, also known as sleeping sickness, is a vector-borne parasitic disease. It develops as a result of infection with protozoan parasites belonging to the genus Trypanosoma. They are transmitted to humans by the bites of tsetse flies (genus Glossina), which acquire the infection from humans or animals that are hosts of these human pathogenic parasites [1, 2, 7]. There are two types of pathogens that infect humans, Trypanosoma brucei ambience and Trypanosoma brucei rhodesiense, named after their discoverer David Bruce [1, 2, 7, 9]. In 1879, David Bruce, an English physician, set out to explore those areas of the African continent where the mysterious disease was rampant. People of the Zulu tribe called it "revolver" and claimed that the tse-tse fly was to blame, which spread sleeping sickness to people. In 1894, Bruce discovered that Nagana, a fatal disease of horses and cattle in Central and Southern Africa, was caused by Trypanosoma brucei, named in his honor. It was transmitted from antelope by the tsetse fly (Glossina morsitans). This work was of great help in his later study of sleeping sickness (trypanosomiasis) in which he showed that the disease was caused by a different tsetse fly (Glossina palpalis) and that it was caused by Trypanosoma brucei gambiense [1, 2, 7]., 9]. Bruce found very motile cigar-shaped protozoa with thin flagella in the blood of tsetse flies. The causative agents of sleeping sickness were named trypanosomes of Bruce, and the scientist was granted the title of Lord by the English Queen [1, 2, 7, 9]. Bruce is depicted on a commemorative stamp issued by Malta for the International Brucellosis Congress held in Valletta in 1964. Postage stamps (perforated and unperforated) and first-day envelopes (PDAs) dedicated to David Bruce are shown in Figure. 1 [3, 4, 11].

Figure 1. Philatelic materials dedicated to D. Bruce and E. Jamo

David Livingstone, the famous English traveler and explorer of Africa, suggested back in 1857 that the terrible disease of Nagan cattle and African human fever were transmitted by tsetse flies that feed on the blood of herbivores. He discovered an abundance of tsetse flies in the Zambezi River valley and found that attack by these insects caused the death of oxen, horses, and dogs. In another area, a similar danger threatened humans [7]. Philatelic materials dedicated to this brave man are presented in Figure. 2 [3, 4, 11].

Figure 2. Philatelic materials dedicated to David Levingston

Among the most famous researchers and fighters against African trypanosomiasis is Eugène Jamot (1879-1937), a French military doctor. Arriving in Cameroon in 1922, he spent seven years in a dedicated fight against the sleeping sickness that ravaged the country. He applied new and effective methods of treatment. E. Jamo began his work in the infected territory, where 50 thousand people lived. In 1924, a quarter of this population was sick, and in 1929, only 1.8 percent were sick. In 1926 he became director of sleeping sickness control in Equatorial Africa. Grateful Cameroonians erected a monument to him in the capital, and France nominated him for the Nobel Prize in Medicine [5, 6].

The research of this French physician and research scientist focused both on the transmission of trypanosomiasis and on its diagnosis and treatment. These studies were also aimed at determining the place of the tsetse fly in the transmission of sleeping sickness. Tsetse flies are found only in sub-Saharan Africa, but only certain species transmit the disease. Sleeping sickness occurs in 36 countries in sub-Saharan Africa where tsetse flies are

vectors of the disease. People engaged in agriculture, fishing, livestock or hunting are most susceptible to tsetse fly bites, and the disease is therefore prevalent in rural areas. Depending on the parasite causing the disease, two forms of human African trypanosomiasis are distinguished: in 98% of all reported cases, Trypanosoma brucei gambiense is the causative agent [8, 10]. Philatelic materials dedicated to the contribution of E Jamo are presented in Figures. 3-5. At the beginning, we would like to show the marvelous French cartomaxims dedicated to the scientist (Figure. 3) [3, 4, 6, 11].

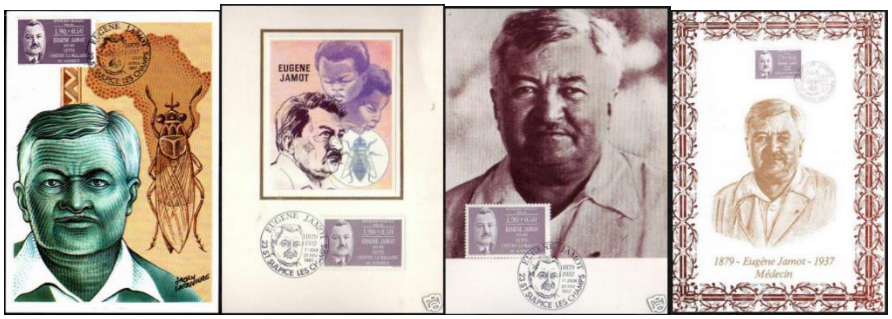

Figure 3. French cartes maximus dedicated to E. Jameau

Also, there are first-day envelopes issued in his honor by the French and Upper Volta post offices, with portraits of the scientist, postage stamps and postmarks of the special stamp in his honor, and the image of the Tse-tse fly, which are shown in Fig. 4 [3, 4, 6, 11].

Figure 4. Envelopes of the first day, dedicated to E. Zhamo

In addition, the postal departments of France and a number of African countries, such as Cameroon, the Republic of Upper Volta, Gabon, were issued, in different years, postage stamps dedicated to the scientific feat of the French scientist. On most of the stamps, in addition to the portrait of the scientist, there is an image of the Tse-tse fly. A selection of a number of postage stamps is presented in Figure. 5 [3, 4, 6, 11].

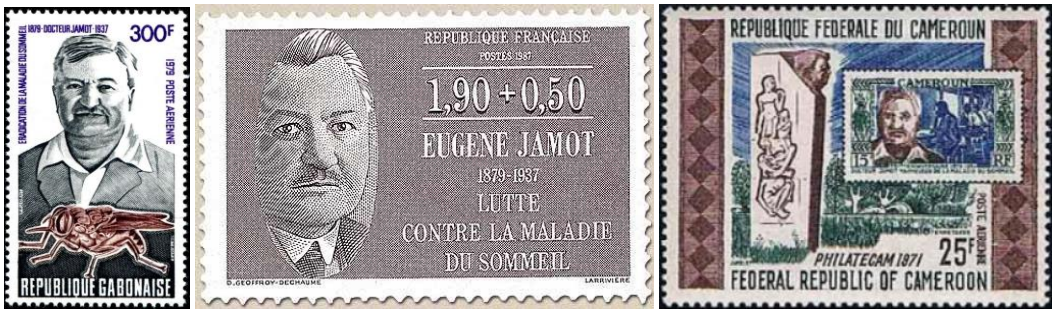

Figure 5. Postage stamps dedicated to E. Jamo

To conclude this article, I would like to present a selection of postage stamps from around the world dedicated to both trypanosomiasis and its vector, the Tsetse fly. These stamps are shown in Fig. 6 [3, 4, 8, 10, 11]. The collection includes a postage stamp of São Tomé and Príncipe, showing Ares Kepkea, a military doctor who worked on the eradication of trypanosomiasis. He was part of the scientific team (together with Bettencourt, de Rezende and Correa Mendes) that first studied the geographical distribution of sleeping sickness in Angola in Angola (1901-1902) [3, 4, 6, 11].

Figure 6. Trypanosomiasis and Tsetse fly on world postage stamps

Conclusions

Collection means representing material sources of culture, selected thematically, are a complete and objective source of information, which can be successfully applied, for example, in the teaching and research of such an important discipline as "History of Medicine". This research work, in our opinion, serves as a vivid illustration of this.

The author is preparing the next research paper on tropical diseases and parasitology.

References

1. Human African trypanosomiasis, animal sleeping sickness. (2023).
2. Human African trypanosomiasis (sleeping sickness)]. (2023).
3. Copyright © 2005 By Scott Publishing Co. BURKINA FASO 1098 BURKINA ...]. .(2023)
4. Crux du Pharo (2023).
5. [Dr. Eugene Jamot conqueror of human trypanosomiasis] – NCBI (2023)
6. Timbre: Dr. Eugene Jamot - French Doctor (Explorer of Sleeping Sicken ...(2023)
7. Trypanosomiasis in India.(2023).
8. Tsetse Fly, (2023).
9. Sir David Bruce (1855–1931) and Themistocles Zammit (1864–1935 ...(2023).
10. WNS: MW003.12 (Tsetse Fly (Sleeping Sickness) (2023).
11. Scott specialized catalogue of Worlds stamps. (2015). New York: Scott. HE6185.U5 S3 55- 876 p.