



History of the Fight Against Smallpox in the Late XIX Century - Early XX Centuries

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Abstract

This article considers the causes and consequences of the spread of smallpox, one of the main problems of medicine in Turkestan in the late 19th - early 20th centuries. In Fergana province in particular, the measures taken to combat smallpox, the main difficulties and problems in implementing smallpox vaccination in the region. The stages of introduction of compulsory vaccination against smallpox and the dynamics of vaccination from year to year using archive materials and historical works are analyzed.

Keywords: *Smallpox; Fergana Region; Variolation; Smallpox Vaccine; Smallpox; Compulsory Vaccination; V.I. Kushelevskiy*

Introduction

Because of the severe consequences of the Covid-19 pandemic, the whole world has once again realized how urgent the development of medicine is. At the same time, in order to draw lessons from history, draw conclusions from its bitter pages, research has been carried out and various articles have been published on various epidemics in world history and their social consequences. In this connection, there is a need for an in-depth study of the social history of medicine in Uzbekistan, in particular the history of the introduction of modern European medicine and the spread and transformation of modern European medicine in the late 19th and early 20th centuries.

The Main Findings and Results

In the late 19th - early 20th centuries, infectious diseases, in some cases of epidemic nature, spread in Turkestan, including in the Fergana region. In such cases, a number of measures are taken to prevent the spread of the disease. However, the number of deaths from infectious diseases was extremely high due to the inability to provide timely and high-quality medical care to the population.

One of the most common and deadly types of infectious diseases in the Fergana region was undoubtedly smallpox. According to V.I. Kushelevsky, a doctor of the Fergana region, local doctors often did not have accurate data on the number of smallpox patients and the number of deaths from it. The main

reason for this is that there is no document on the metric data of the local population. For example, preliminary information on deaths from smallpox can be obtained from cemetery wardens. On the basis of the data provided by them it can be concluded that the infant mortality from smallpox is high [1, pp. 171-172].

Although sources do not have full access to smallpox prevalence in the province and its victims, we can draw conclusions about its prevalence based on reports from local doctors. In particular, in July 1878, an epidemic of smallpox in the village of Bulakbashi near Osh killed 50 people. In October 1886, 220 children died in Namangan. In December 1891, in Buloqboshi, Jalakuduk, Akboyra, Novqat, Aloy parishes of Osh county, smallpox affected 834 people, 320 of whom died [2 B.91]. In addition, in the statistical collections of the Fergana region we can see data on the high mortality rate among smallpox patients in different years. In 1893, 16 out of 128 patients with smallpox died. In 1894, 13 out of 78 patients died. In 1895, 38 out of 105 patients died. In 1897, 41 out of 157 patients died. In 1913, 75 out of 139 patients died. The data confirm that smallpox in the Fergana region threatens the life and health of the population every year in individual districts or villages, and sometimes in several districts or villages simultaneously.

Smallpox control has been a major medical issue since ancient times. An ancient specific method of prevention and treatment is the vaccine against smallpox by means of variolation. Ar-Razi, a physician and encyclopedist who enriched the field of medicine in the Middle Ages with new ideas and inventions, was the first to write a book on smallpox and measles in his “Kitab al-judari wa-l-hasba”, citing the difference and the rate of disease. Ar-Razi determined that a person with one smallpox would not be exposed to the disease a second time, and concluded that he should be vaccinated against smallpox. Thus, today’s doctors have recognized Ar-Razi as the founder of the anti-smallpox vaccine. Later, the smallpox vaccine became widely available in the East and West.

Later, in 1796, the English rural physician Edward Jenner ushered in a new era of smallpox vaccination - a new era of smallpox vaccination worldwide by creating smallpox immunity by injecting bull measles into a healthy human body. The invention of E. Jenner was recognized by all countries of the world and began to spread rapidly.

Before the invasion of the Russian Empire, doctors in Turkestan, including the Fergana Valley, were vaccinated against smallpox. According to Kushelevsky, a specific method of vaccination was used [4, p. 167].

After the establishment of the colonial regime of the Russian Empire in Turkestan, a number of measures were taken to vaccinate the population against smallpox as one of the main directions of social policy. First of all, in order to raise the awareness of the Russian population of the benefits of vaccination against smallpox due to the increase in the number of smallpox cases and the number of deaths from smallpox. Letter of the Russian Imperial Free Economic Society to the Governor-General of Turkestan K.P.von Kaufman dated August 25, 1872, entitled “Vaccination against smallpox”. It was reported that 60 brochures were sent to the Governor-General of Turkestan. This book was delivered to the current church ministers in Turkestan (2 copies per church). The priests were instructed not only to acquaint their flock with the contents of the book, but also to convince the people to follow its instructions and advice, and every priest must report on the work done at the end of the year. In order to increase the effectiveness of this measure, it was noted that the interaction of the clergy with the heads of districts and cities is of great importance [5, pp. 1-2].

These data show that in the early years of the colonial regime, not only the local population but also the European population in the country did not have much confidence in the state and the benefits of vaccination against smallpox. Therefore, the work in this direction began, first of all, with the promotion of the revival of the anti-smallpox vaccine among the population of the region.

One of the main stages in the development of anti-smallpox vaccination in the Turkestan region, including in the Fergana region, was the adoption on May 8, 1879 of the Regulation “On smallpox vaccination in the Turkestan Governor General”. According to the Charter, the primary aim is to study vaccination against smallpox, if not found, by order of the local administration to prepare educated, well-educated, healthy and able-bodied persons between 18 and 25 years of age from the local population and Russians. Training in smallpox vaccines was provided in hospitals, without such facilities at home, by a district doctor and continued for 6 months. During the training students were provided with food, clothing and shelter [6, p. 27]. During the training, students were given 20 kopecks per day for everyday needs [7, p. 40]. At the end of the training, the district doctor gave the students a certificate confirming that they had been fully immunized and allowed them to practise privately.

Vaccinations against smallpox are paid at 180 rubles per year. In addition, awards and prizes were given to those who worked diligently in vaccination, who managed to vaccinate more people than other vaccinators. For example, in January 1886, according to the head of the Andijan district, vaccinators Thor Khoja Ismail Khoja, Shoysmatilla Shonematillaev and Khoshim Akhunbayev, who conscientiously approached their work and gained the trust and recognition of the population, received a lump-sum bonus of 25 rubles [8, p. 1]. The vaccinators were also dismissed for indifference to their work, their health and misconduct. On October 14, 1881, Abdurrasul Ahmadbayev, the vaccinator of Bobotavkul and Maidan townships of Andijan district, was dismissed due to negligence, and Mullah Hasan Muhammadrasulov, the vaccinator of Kokand district, was dismissed due to illness [9, pp. 18, 23]. According to the following table, in 1886 the salary of the smallpox vaccine was increased to 200 rubles a year. In particular, this year, 23 vaccinators worked at the vaccination points in the Fergana region, they were paid a total of 4,600 rubles.

Information on smallpox vaccines and their material supply in Fergana region in 1886 [10, pp. 35-36]:

№	Smallpox vaccination plots, the name of the volosts attached to them	Number of vaccinators	Financial support
In Kokand district			
1	In the city of Kokand	2	400
2	Rishtan, Zodiya, Ultarminsk, New Kurgan, Kenegez, Kudash, Buyayda, Naiman, Karakalpak, Kipchak, Ganjiravan and Aravan volosts	1	200
3	Isfara, Sokh, Laylak, Naygut-Kipchak, Mahram, Konibodom, Besharik, Janjal, Yaypan, Chirikjiy, Kaynar volosts	1	200
	Total:	4	800
In Chust district			
4	Chatkal, Bayastan, Kutluq-Said, Kasan, Tergovchi, Turakurgan and Aksi-Shahand volosts	1	200
5	To Chust, Varzik, Olmos, Pop, Chodak, Asht and Bobodarkhan volosts	1	200
	Total:	2	400
In Osh district			
6	Osh and Akbura volosts	1	200
7	Gulchi and Oloy	1	200
8	Navqot, Jalal-Abad and Bulakbashi volosts	1	200
	Total:	3	600
In Namangan district			
9	In the city of Namangan	1	200
10	Khanabad, Kyrgyz Kurgan, Kum-Kurgan volosts	1	200
11	Uychi, Chartak, Beshkaram, Yangi Kurgantepa, Nanay, Baghish	1	200

	volosts		
12	Kirkavul, Saruysk, Ketmontepa volosts	1	200
	Total:	4	600
In Andijan district			
13	Khudoyor and Bobotavakkal volosts	1	200
14	Altynkol, Hokent and Yorboshi volosts	1	200
15	Oyim, Kurgantepa, Karasuv volosts	1	200
16	Kokand, Maygir, Mayli-Izboskan, Naryn, Balikchi, Hakkulobod volosts	1	200
17	Jalal-Abad, Uzgen, Kurshob, Bazar-Kurgan, Kogart and Navkent volosts	1	200
	Total:	5	1000
In Margilan district			
18	In the city of New Margilan	1	200
19	Old Margilan and Ichkilik, Naiman, Yovkesak-Boston volosts	1	200
20	Asaka, Segaza, Qoratepachovkent, Kuva, Shahrikhan volosts	1	200
21	Kokand village, Avval, Mingtepa, Aravon and Lake volosts	1	200
22	Chimgan, Altariq, Fayzabad, Yakkatut, Yazyavon	1	200
	Total:	4	400
	Total in the region:	23	4600

By the end of the 1870s, smallpox vaccination in the Fergana region had not developed. According to the official report of the Turkestan Military Medical Department, in 1876, a total of 29 104 people were vaccinated in Turkestan, 28,058 of them local residents. Most of the vaccinated were residents of Syr Darya region. In the Fergana region, information on who was vaccinated was not provided. It seems that in the early years of colonial administration, the smallpox vaccination campaign was watched from behind bars. According to the doctor of the Fergana region V. Kushelevsky, the main reasons for the delay in vaccination against smallpox in the Fergana region are, firstly, distrust of the local population, secondly, the lack of assistance from the local authorities in organizing vaccination, which were not provided for by law. In addition, the lack of qualitative smallpox detritus, insufficient activity of vaccinators and impossibility of their control also led to stagnation of work in this field [11, pp. 166-170].

In the early 1880s, the first phase of compulsory vaccination was introduced in Turkestan to revive smallpox vaccination. Decree of the Turkestan Governor-General von Kaufman of March 2, 1880 "On the introduction of compulsory vaccination against smallpox among the Russian population of Turkestan" Mandatory vaccination of the Russian population was introduced to prevent future smallpox epidemics. On August 8, 1881, by order of the Governor of the Fergana Region, Russian children under the age of 15 were vaccinated against smallpox [12, pp. 1-2].

According to sources, the number of vaccines against smallpox is increasing every year as a result of the local population's adaptation to European medicine. In particular, from 1881 to 1897-98. The population of the Fergana region increased from 700,000 to 1,571,157, and the number of people vaccinated against smallpox increased from 3,245 to 18,085. In subsequent years, however, this number increased dramatically, reaching 19,304 in 1900. Since this year, these figures have grown steadily from year to year, and in 1914 the number of vaccinated against smallpox was 57,299 people from 2,190,424 inhabitants of the province [13, pp. 108]. It should be noted that one of the main reasons for the rapid increase in smallpox vaccination was the diligence and integrity of the country's European doctors and local smallpox specialists.

The social and economic crises caused by the First World War have had a very negative impact on health care in Turkestan, in particular the development of anti-smallpox vaccination. In the post-war

years, however, the problem arose of reorganizing much of the work in this area. For example, in the major cities of Turkestan, including the cities of the Fergana region, there were isolated cases of smallpox not only among the local population, but also among Russians.

The adoption on April 10, 1919 of the Soviet Government Resolution “On Mandatory Vaccination against Smallpox” marked a new stage in the development of work in this field. The Soviet Union has been working on this issue. Under this decree, all newborns must be vaccinated, and the cost of vaccination against smallpox must be reimbursed from the central State treasury, In particular, financial support for anti-smallpox vaccination institutes and training institutions and the provision of full-fledged courses in smallpox. vaccination schedule is set. The Ordinance also provides that local administrations that register deaths and births must provide timely information on deaths of newborns and children under one year of age to the health authorities. Later, on the basis of this decision, the People’s Commissariat adopted the Regulation “On preventive vaccination against smallpox”. These rules stipulate that children must be vaccinated at least twice between the ages of 10 and 18, and that the smallpox vaccine must be free and available.

Conclusion

Thus, in the late 19th and early 20th centuries, smallpox was one of the most severe diseases of the Turkestan region, including the Fergana region, as the most common disease, posing a serious threat to the health of the population. In the 1970s, vaccination against smallpox was more difficult in the country than in other Russian provinces. The main reasons for this were, firstly, the lack of accurate data on the number of cases of smallpox and deaths from smallpox in the country, and secondly, the high level of health personnel in the country. In addition, the development of work in this area was also negatively affected by the distrust of the local population to the vaccine, the inaction of local officials of the tsarist government. Since then, with the introduction of compulsory smallpox vaccination and the efforts of European doctors, the number of smallpox vaccinations among the local population has gradually increased from year to year.

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