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THE FIGHT AGAINST THE EPIDEMIC DISEASES IN TAURIDIAN PROVINCE IN 1860–1890S

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ABSTRACT. The paper characterizes the level of the development of medicine in the Russian Empire in 1860-th — 1890-th on the basis of information from the Tauridian Province, marks the main diseases that doctors and paramedics had to deal with, provides specific facts and statistic data. Its main task is to show by concrete examples that medical personnel often had to resist infections almost alone, endanger their lives and health on a diary basis, come into contact with the inertia and indifference of the majority of ordinary people. It making an attempt to identify the causes of high mortality of the population, to show particular measures, which had been taken by physicians for reducing of the catastrophic consequences of epidemics. The publication highlights the methods of combating various acute diseases, tells about numerous achievements that the Tauridian medical staff managed to succeed. Among the innovations that were widely implemented in practice at the end of the XIXth century were vaccination against smallpox, involvement of female medical personnel in inoculations and patient care, measures for isolation infected people in separate spaces, regular disinfection of individual houses and entire settlements, the appointment of special trustees to monitor the sanitary condition of streets and courtyards. The beginning of the 1890-th was marked by the creation of special coordinating institutions (the Tauridian Medical Council and the Sanitary Bureau) in Simferopol under the Tauridian Provincial Zemstvo Authority, which facilitated the collection and processing of statistical data, preparing annual reports and the implementation of measures to combat diseases throughout the region. The scientific value of the research is emphasized by the integration of rarely used materials from the documents of the Crimean Republic State Archive, being almost not introduced into the view point of researchers.

KEYWORDS: the Tauridian Province, the Provincial Medical Department, the Tauridian Provincial Zemstvo Authority, paramedic, inoculation, an epidemic disease, smallpox, diphtheritic, sanitary trustee, mercy sister, the Tauridian Medical Council, the Provincial Sanitary Bureau

БОРЬБА С ЭПИДЕМИЧЕСКИМИ ЗАБОЛЕВАНИЯМИ В ТАВРИЧЕСКОЙ ГУБЕРНИИ В 1860–1890-х ГОДАХ

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РЕЗЮМЕ. Статья характеризует уровень развития медицины в Российской Империи в 1860–1890-х годах на основе сведений Таврической губернии, отмечает основные заболевания, с которыми приходилось сталкиваться врачам и фельдшерам, приводит конкретные факты и статистические данные. Ее основная цель — подчеркнуть позитивные и негативные явления борьбы с различными болезнями; обратить особое внимание на передовые новшества, способствовавшие успешной борьбе с ними. Ее основная задача — показать на конкретных примерах, что медицинскому персоналу зачастую приходилось противостоять заражениям почти в одиночку, ежедневно подвергать опасности свою жизнь и здоровье, соприкасаться с инертностью и равнодушием масс обывателей. В работе предпринята попытка выявить причины возникновения высокой смертности населения, показать конкретные меры, предпринимаемые медиками для снижения катастрофических последствий эпидемий. Публикация делает более наглядными методы борьбы с различными острыми болезнями, рассказывает о многочисленных успехах, которых удалось достичь таврическому медицинскому персоналу. Среди новшеств, широко внедрявшихся на практике в конце XIX века, — вакцинация от оспы, привлечение к проведению прививок и уходу за больными женского медицинского персонала, меры по изоляции зараженных в отдельные помещения, регулярная дезинфекция отдельных домов и целых населенных пунктов, назначение особых попечителей для надзора за санитарным состоянием улиц и дворов. Начало 1890-х годов ознаменовалось созданием в Симферополе при Таврической губернской земской управе особых координирующих органов (Таврического врачебного совета и санитарного бюро), облегчивших сбор и обработку статистических данных, составление годовых отчетов, проведение мер по борьбе с болезнями в масштабах всей губернии. Научную ценность статьи подчеркивает использование документов Государственного архива Республики Крым, почти не внедренных в поле зрения исследователей.

КЛЮЧЕВЫЕ СЛОВА: Таврическая губерния, губернское врачебное отделение, Таврическая губернская земская управа, фельдшер, прививка, эпидемия, оспа, дифтерит, санитарный попечитель, сестра милосердия, Таврический врачебный совет, губернское санитарное бюро

INTRODUCTION

In recent years, the epidemiological situation around the world has become more acute. Thousands of people are sick and dying from tuberculosis, AIDS, monkeypox, pneumonia, coronavirus infection. This is happening despite the fact that in the XX century doctors have made tremendous progress in the fight against various diseases and have developed vaccines for many previously incurable diseases. It is difficult to imagine how medics of XVIII–XIX centuries counteracted epidemics, who did not yet have at their disposal such life-saving drugs that could fight previously incurable diseases. They had to face indifference of authorities, religious superstitions, misunderstanding of uneducated common people, lack of financial support at every step. The article attempts to highlight the development of health care in the Taurida Governorate in the 1860s–1890s. The publication repre-

sents a new approach to the events, their concretisation, disclosure of “white spots” which have not been studied yet. Undoubtedly, the activity of Russian doctors of that time can be regarded as a feat, self-sacrifice, an important step towards the enlightenment of the people, curbing devastating epidemics and preventing them in the future.

The aim of the work is to highlight the development of medicine and sanitary affairs in the cities and districts of Taurida Governorate in the 1860–1890s; to emphasise the positive and negative phenomena that doctors had to face; to pay special attention to the advanced innovations that contributed to the successful fight against diseases.

Its main goal is to show by concrete examples that doctors often had to confront dangerous contagious diseases almost alone, to put their lives and health in danger every day, to come into contact with the inertia and indifference of society.

When writing this article, we widely used information from the documents of the State Archive of the Republic of Crimea and minutes of the congresses of doctors of Taurida Governorate. These materials are poorly studied, not known to all researchers, practically not introduced into the scientific turnover. They allow to study the topic more deeply, accurately and concretely, to fill it with details and facts which were not known to a wide audience before. They allow us to show more vividly and imaginatively the struggle of Tauride doctors and paramedics against epidemics (such as smallpox, diphtheria, typhus, etc.), which annually covered towns and villages and resulted in dozens and hundreds of victims.

THE MAIN PART

At the end of the nineteenth century, the area of Taurida Governorate was 53,053.8 verst², or 60,375.2 km². It included five regions in the Crimea (Eupatoria, Perekop, Simferopol, Feodosia and Yalta) and three mainland regions (Berdyansk, Dneprovsk and Melitopol). The system of “public health” included the following stages. At the lowest level — free-practising doctors in towns and villages, which numbered 69, including 2 women doctors [2, 8]¹. Several volosts were part of a local medical district, where a doctor, a paramedic, a nurse, and a vaccinator performed simple medical procedures in the emergency room and supplied peasants with medicines through a pharmacy. The number of such stations could vary from county to county. The general supervision over the development of diseases in the county and its sanitary condition was carried out by the county doctor, who was responsible directly to the Medical Department of the Tauride Governorate Board and the medical inspector. Thus, the general assistance to the sick inhabitants of both towns and villages was provided by public service physicians. Zemstvo doctors, responsible to the district zemstvo boards, were mainly engaged in providing assistance to the rural population on small plots. The largest number of practising doctors (15) was in Melitopol district, and the smallest number (3) — in Simferopol district.

The number of paramedics, which in the early 1890s worked in the entire province, 154, also varied by district — from 38 (in Berdyansk) to 8 (in Yalta) [2, 8]. One third of all medical personnel of the province conducted appointments in cities, and 2/3 — in the countryside.

The level of education of doctors and paramedics in the field varied. Among them there were both graduates of medical faculties of universities and medical and surgical academies, and random persons who had no idea about the methods of surgery, symptoms of certain diseases [8]. Not knowing the basic measures of sanitary prevention, many of them did not take any measures to prevent epidemics in advance, did not prepare peasants to fight diseases, were lost and waited for orders from “above” when urgent measures were needed to stop the development of disease. In such cases, it turned out that the initiative to carry out preventive measures in the field came from the governor or inspector, rather than from the doctor, whose position obliged him to directly deal with such measures². District zemstvo doctors did not stay in one place for long, they could be transferred so often to different hospitals, districts and provinces that they did not have time to get acquainted with local residents, their languages and customs, and climatic conditions of the area³.

Even with such medical personnel, the Tauride districts were not equally provided [2]. If in Berdyansk and Melitopol there were 10 medical sites, then in Dnieper and Perekopsk — 7, in Yalta and Feodosia — 5, in Simferopol — 3 and in Yevpatoria — only 2. Accordingly, depending on the district, their area fluctuated — from 2524 verst² (in Eupatoria district) to 311 verst² (in Yalta district). On the average for the province it was 1138,5 verst². If we take into account the population of medical sites, on average in the province it reached about 16 640 souls of both sexes (in Melitopol district — 27 277, Berdyansk — 24 455, Yevpatoria — 21 639, Simferopol — 12 175, Yalta — 7423). [2]. That is, there were about 6375 people per one paramedic: from 3804 in Yalta uyezd to 12 398 in Berdyansk uyezd. In Taurida Governorate there were 21 hospitals and 19 reception centres [2]. In Melitopol uyezd there were 7 hospitals, while in Simferopol uyezd there were none at

¹ State Archive of the Republic of Crimea (SACR). F. 27. O. 12. D. 130. L. 142–143, 247; SACR. F. 27. O. 12. D. 115. L. 249.

² SACR. F. 27. O. 12. D. 130. L. 551–552.

³ Ibid. L. 551–552; SACR. F. 27. O. 12. D. 155. L. 125.

all, except for the provincial zemstvo hospital in the city itself. In total, medical centres had 954 beds, which was negligible in relation to the total population of the province, which reached just over 1 million 450 thousand souls. Hospital places were distributed among the districts in the following proportions [2]. In Dnieper district — 98 (one per 1501 people); in Melitopol — 95 (1:2871); in Berdyansk — 85 (1:2877); in Feodosiya — 48 (1:1188); in Yalta — 44 (1:843); in Yevpatoria — 30 (1:1442); in Perekopsk — 26 (1:2080) and in Simferopol — 18 (1:2065). On average, there were 104 verst² of territory and 1,671 local inhabitants per 1 hospital bed in the province. Specialised and infectious disease beds could be referred to only in large hospitals, which were located, as a rule, in district centres, railway stations and large villages. Smaller zemstvo stations rarely had them. In the 1890s, doctors themselves recognised the development of “public health” in Taurida Governorate as weak, insufficient and unsatisfactory, and the medical-police and sanitary parts were practically not adjusted at all [8]¹.

There was no less disorder and ugliness in the reports and statements provided by doctors² [2, 3, 8]. There was no common form for filling out documents, which made it very difficult to compile annual summaries, keep current records of morbidity and the dynamics of epidemics. Each doctor and each district zemstvo kept documentation in their own way, as they considered necessary and correct. Many physicians sent annual reports to Simferopol untimely, the data were not checked, it was entered inaccurate and incomplete. Doctors did not process the data, allowed voids and errors. Even more confusion was caused by the subordination of doctors to different departments and reluctance of zemstvo physicians to send their data anywhere but the district zemstvo. Instead of their interaction with the district doctors, there was only intrigue and clarification of relations. Information about the progress of smallpox inoculation, spread of widespread diseases of people and livestock was often inaccurate and approximate. Under the created conditions it became almost unreal to get clear and accurate information about the number and organisation of medical institutions,

boundaries of medical stations, spread of epidemics and measures for their prevention, dynamics of infections by months and years. As there was no central controlling and unifying organisation in Taurida Governorate for a long time. The compilation of annual medical reports and the planning of general medical and sanitary measures were incredibly difficult, costly and time-consuming problems. In 1879, the Medical Department submitted a report to the Tauride Governorate Board containing specific instructions to city, district and zemstvo doctors to prevent further confusion and misunderstandings. From that moment all medical personnel of the province were provided with special forms for the preparation of reports and were obliged to submit them completely and accurately filled in to the medical inspector by 15 December (zemstvo doctors — by 1st December) every year.

While each uезд acted on its own, on its own, and filled out documents as it wished, towns and villages were immersed in mountains of filth and rubbish. From year to year, city and district doctors, sanitary commissions of zemstvos and city councils reported about overcrowded and cramped dwellings, neglected market squares, rivers and sewers overflowing with filth, cesspits in courtyards that had not been cleaned for years, filthy slaughterhouses, shops and taverns. Only rare settlements had a relatively tolerable appearance. The Yevpatoria district doctor informed the Medical Department that the local market square was covered with a dense layer of rubbish and manure because of the submarines standing there during the whole market day [1]³. In autumn this rubbish formed rotten stinking puddles, and in summer — dust mixed with organic decay products. In addition to numerous taverns, shops and inns, these bazaars also housed ‘slaughterhouses’ for slaughtering cattle. The buildings in the town were extremely cramped and had almost no courtyards, and the alleys were so narrow that they barely allowed carriages to pass. The locals tended to dump their filth directly into the street, forcing passers-by to move only with extreme caution to avoid the excrement. All these factors led to the air being tainted by an almost unceasing stench.

The situation in Yalta was more worse than in Yevpatoria⁴. The small and cramped market

¹ SACR. F. 27. O. 12. D. 130. L.551–552; SACR. F. 27. O. 12. D. 155. L. 125.

² SACR. F. 27. O. 12. D. 115. L. 1–2, 3.

³ SACR. F. 27. O. 12. D. 101. L. 113; SACR. F. 27. O. 12. D. 121. L. 386.

⁴ SACR. F. 26. O. 1. D. 26995. L.150–158.

square, filled to the brim with ugly and dirty stalls, which was cleaned only at the beginning of summer — on the eve of the arrival of the rich public and courtiers. The rest of the time it drowned in the dirt and manure. One of the narrow alleys — Vorontsovsky — was called by local witters “cosmetic” because of the stinking piles of manure and puddles of mud. Visitors who were not used to such “odours” had to “quicken their steps and pinch their noses”. Only the location of the town on the slopes of the mountains and the stony soil prevented the formation of impenetrable mud and dirt from penetrating deep into the ground. The courtyards of the manors were characterised by cramped and small spaces, and some owners had none at all. The inhabitants drained the liquid mud through ditches and gutters into mountain rivers and the sea, and used the slops to water tobacco plantations, orchards and vineyards. The pit latrines in the courtyards were rarely cleaned and disinfected. They were usually used until they were full and then buried and made into a new latrine. The result was a system of rotten stale cloaks from many yards. Disposing of foul sewage in leaky, untreated barrels was considered expensive and difficult and was in a very primitive state. The cleaning of streets and yards was resorted to only occasionally, as a last resort. At one of the meetings in 1879 members of the city council complained that Yalta would not be able to be “Russian Nice” as before, if the residents did not observe elementary measures of sanitary cleaning and disinfection. The “city fathers” considered the sanitation of streets and yards as an urgent matter that did not require delay and waiting for the allocation of funds. The lower the sanitary and hygienic conditions of the city, the less sick people would come to it during the summer season and the less money would come into the city budget.

Dirt and unsanitary conditions were even more noticeable in Melitopol, the main city of one of the mainland counties¹ [8]. The situation here reached the point of paving the streets with dung, making bricks from a poorly dried mixture of earth with grass and straw, and using for drinking water from springs flowing from under the hill with the ceme-

tery. The city’s soils were deeply soaked with a perennial layer of sewage and various organic compounds that had accumulated over decades. The streets and the market square were filled to capacity every day, especially on trading days, with vagrants, carts and carts living in the open air. This was evidenced, for example, by the report of Melitopol town doctor in 1876: “Melitopol is probably the only city in Russia, in which squares and streets served as an inn on such a huge scale. The custom of staying with horses and feeding them in the streets has taken root here to such an extent that even rich people — German landowners and other landowners — coming on their business to the city, stay in the square near the shops all day long with a van and horses. Their whole family spends the whole day in the wagon; they have a bedroom and a dining room in it. The food remains are thrown out into the square, which, together with the dung left by the horses, makes a heap of rubbish, which is left to rot in the place”².

The inhabitants of Melitopol often moved into the new houses in the late autumn, before the heating, and did not even let the walls dry out properly³. The annual spring floods of the Molochnaya River led to swamping of the banks, formation of rotten puddles and cloaks, overflowing with mosquitoes and emitting a stench. The situation was further aggravated by the dry steppe air, high temperature and humidity. As a result of all these factors, dozens and hundreds of local inhabitants were exposed year after year to various acute diseases (malaria, bronchitis, fever, fever, typhus, measles, whooping cough, inflammation of tonsils and mucous membranes, rheumatism), which often had a malignant and fatal course. In a report of 1883, the Melitopol town doctor reported about the resolution of the town council to oblige the inhabitants of one of the streets to raise the level of low-lying land so that water would not stagnate there⁴. He doubted that the idea could be easily implemented, as the cost of levelling exceeded the price of all the property of the homeowners. Dirty and stinking puddles like those in Melitopol, he said, could be found in a backwater Asian town, not in a self-respecting county town⁵. The doctor doubted

¹ SACR. F. 27. O. 1. D. 84. L. 300–301; SACR. F. 27. O. 12. D. 104. L. 43–46; SACR. F. 27. O. 1. D. 110. L. 194 at 196; SACR. F. 27. O. 12. D. 115. L. 121 at 130; SACR. F. 27. O. 12. D. 121. L. 247–250; SACR. F. 27. O. 12. D. 131. L. 228–230; SACR. F. 27. O. 12. D. 155. L. 403–408.

² SACR. F. 27. O. 12. D. 108. L. 149.

³ SACR. F. 27. O. 12. D. 84. L. 300 ob.

⁴ SACR. F. 27. O. 12. D. 121. L. 249.

⁵ Ibid. L. 249.

the belief that prevailed for many years that the main reason for the unsanitary condition of the city and the increase in the incidence of disease among its inhabitants was the swampy banks of the Molochnaya River and rightly emphasised the main factors: inactivity and inertness of the city authorities, the low level of culture of local residents. Numerous appeals of the medical officer to the city government and county zemstvo with various proposals to improve the sanitary condition of Melitopol remained unanswered or did not lead to the expected results.

It is no secret that with such a low level of sanitation of settlements and cultural level of the population, various contagious diseases spread in Taurida Governorate year by year. They deprived dozens and hundreds of people of their strength and health, and often their lives, spared neither old people nor children, neither rich nor poor. One of the most dangerous epidemics, especially in rural areas, was the smallpox. Rarely a year passed in Taurida without its devastating outbreaks with a high percentage of deaths among children and young people. For example, in 1883, 227 out of 881 people afflicted with this disease died, and during 1891–1892 911 out of 2631 people who fell ill died¹ [2, 8]. Where could such deplorable statistics come from, if it is known that inoculations against smallpox were made in Russia since the end of the XVIII century? Let us consider several aspects. At the end of the XIX century, “humanised lymph and calf detritus” were used as smallpox vaccines² [2, 4, 6, 8]. Due to the small number of specially trained smallpox vaccinators, inoculations were administered by local paramedics when travelling around the counties and volosts of their district. For each successfully implemented and adopted procedure, they received remuneration — 20 kopecks from the city and 30 kopecks from the zemstvo. Feldshers were not always conscientious in the performance of their duties due to different levels of training and workload associated with the provision of routine medical care to the villagers³ [2, 8]. In many uyezds they, like

doctors, lived in the main town rather than in the district, and treated their work without due love, care and patience. The lower medical staff sometimes showed such uncharacteristic traits as uneducatedness, rudeness, haste, and slovenliness to patients from peasants. The first vaccinators in Berdyansk district in the 1860s were retired soldiers who had no medical skills and treated their duties with sloppiness. Sometimes there were even frivolous dandies among the paramedics, who were not after the quality of vaccination, but after the quantity and high figures in the report, demanding money from the villagers for free vaccination. As a result, children in villages and districts were often found to have vaccines that did not take root or were not vaccinated at all. Due to the different sizes of medical stations and infrequent travelling, doctors' control over smallpox vaccination was irregular and random. The district zemstvos did not provide the medical staff with fare money, and the post station keepers did not provide horses in time. Such delays missed the deadlines for withdrawal of lymph, as a result of which it lost its power. Preparations (and not always of high quality) were sent from St. Petersburg or central provinces. Due to constant transport from place to place and hot weather, lymph was often wasted⁴ [2, 8]. These problems were aggravated by the creation by the Tauride Governorate Zemstvo of its own smallpox committee with a staff of paramedics, who transmitted information about the incidence of the disease and inoculation reports not to district doctors and the Medical Department, but only to the zemstvo authorities⁵.

The habits and traditions of the local population, who were sceptical of any innovations, were closely intertwined with the low qualifications of medical staff and organisational shortcomings. The Tatar population continued to live in unsanitary conditions, rarely visited baths, and almost never changed their beds and dirty clothes⁶. There were cases when a sick child was specially placed with a healthy child so that they would get over the disease as soon as possible⁷. In southern coastal villages, hou-

¹ SACR. F. 27. O. 12. D. 121. L. 429.

² SACR. F. 27. O. 12. D. 104. L. 221; SACR. F. 27. O. 12. D. 113. L. 87, 277–278; SACR. F. 27. O. 12. D. 131. L. 584; SACR. F. 27. O. 12. D. 155. L. 676–678; SACR. F. 60. O. 1, D. 14. L. 14.

³ SACR. F. 27. O. 12. D. 84. L. 154; SACR. F. 27. O. 12. D. 104. L. 221; SACR. F. 27. O. 12. D. 121. L. 7..

⁴ SACR. F. 27. O. 12. D. 121. L. 7; SACR. F. 27. O. 12. D. 155. L. 584.

⁵ SACR. F. 27. Op. 12. Д. 84. L. 116 об, 360 об, 490 об.

⁶ SACR. F. 27. O. 12. D. 113. L. 89, 90, 277, 278; SACR. F. 27. O. 12. D. 121. L. 172.

⁷ SACR. F. 27. O. 12. D. 113. L. 278.

ses were built in the middle of uncleaned yards, with dirt floors, in extreme cramped conditions. Such buildings were seldom ventilated, and almost always emitted the odour of rot and dampness. In 1878, Gypsies travelling from village to village contributed to outbreaks of smallpox in several places in Yalta and Feodosia counties at the same time¹. Only thanks to the timely actions of doctors and paramedics it was possible to avoid mass mortality of Tatar children (10 out of 85 who fell ill in the Baidar Valley died).

The reason for the emergence of the epidemic in 1883 in the mainland counties was the elementary lack of police supervision and quarantines². Residents continued to move freely, visiting infected houses. In the village Kostogryzovka of Dnieper district, a local priest dared to marry a girl with smallpox, who died on the third day. During visits to smallpox-affected areas, county doctors and paramedics personally and through priests or imams approached peasants and talked to them about methods of saving children from the disease. They gave free vaccinations and medicines to the villagers and persuaded them to observe elementary protective measures (to take baths, wash clothes, remove dirt, air the rooms, whitewash the walls with lime, isolate the sick in a separate room and prevent their contact with other people, fumigate contaminated things with sulphur solution or burn them)³ [2]. In case of particularly acute and persistent outbreaks of the disease, it was necessary to send police and soldiers to villages, to set up posts of tens of policemen near infected houses, to prohibit approaching the epidemic hotbeds under threat of liability, to organise sanitary quarantines and cordons on the roads⁴ [2, 4, 6].

Every year the Taurida Governorate was affected by an even more terrible epidemic that devastated cities and counties and claimed dozens and hundreds of children's and young people's lives. It was diphtheria, and at the end of the nineteenth century people did not know how

to fight with it⁵ [8]. In 1873 in the Feodosia and uyezd 431 people (including 368 children) fell ill, 218 died. In 1877 in the same uyezd 65 out of 180 people died, and in Dneprovsky uyezd — 354 out of 826. The following year in Berdyansk — 1463 out of 2464 all possessed by the disease, in the Evpatoria — 17 out of 19. In 1879, 867 out of 1449 died in Berdyansk, 53 out of 59 in Melitopol, and 9 out of 12 in Yevpatoria. None of the 24 who fell ill in Melitopol survived. Even in 1895, 757 people out of 2249 of all those possessed by the contagion in the province could not be saved.

From year to year reports of city and district doctors placed tearful hopes such as “All possible methods of diphtheria treatment were unsuccessful”⁶ [8]. The fight against the acute infectious disease was complicated by the fact that medical science of the second half of the nineteenth century had not yet fully identified the conditions of origin and development of the disease [8]. Doctors were puzzled how an insidious disease could subside and lurk to isolated cases, so that in a few months it could flare up with even greater force than before. This was evidenced, in particular, by the report of the Berdyansk district doctor of 1879: “This disease now, as in the previous year, in late spring and summer until August is so quiet that the majority of the population willingly believed that diphtheria with all its horrors has completely stopped. But with the onset of dampness and cold the illness intensified and the despondency increased too”⁷.

The epidemic constantly kept Tauride cities and villages in fear and tension, was not eradicated completely, but gave only temporary, very shaky and deceptive relief, left and returned to the same villages and families⁸. During the warm spring-summer period, when field work was going on, people were on the open area and left open doors and windows in the houses, providing a constant inflow of fresh air, the incidence

¹ SACR. F. 27. O. 12. D. 113. L. 89 ob. 90, 277, 277 ob.

² SACR. F. 27. O. 12. D. 121. L. 380–381.

³ SACR. F. 27 O. 12. L. 101. L. 363; SACR. F. 27. O. 12. D. 115. L. 277, 277 ob; SACR. F. 27. O. 12. D. 121. L. 271–272; SACR. F. 27. O. 12. D. 130. L. 247.

⁴ SACR. F. 27. O. 12. D. 101. L. 363; SACR. F. 27. O. 12. D. 121. L. 271–272.

⁵ SACR. F. 27. O. 12. D. 84. L. 69; SACR. F. 27. O. 12. D. 108. L. 67, 68, 75, 76; SACR. F. 27. O. 12. D. 110. L. 87, 205, 334; SACR. F. 27. O. 12. D. 113. L. 6, 90, 91, 286; SACR. F. 27. O. 12. D. 115. L. 79, 120, 184, 377, 378.

⁶ SACR. F. 27. O. 12. D. 115. L. 129 ob, 378, 378 ob.

⁷ SACR. F. 27. O. 12. D. 115. L. 184.

⁸ SACR. F. 27. O. 12. D. 113. L. 220; SACR. F. 27. O. 12. D. 121. L. 2 o, 19 o, 130 o, 184; SACR. F. 27. O. 12. D. 130. L. 438, 485; SACR. F. 27. O. 12. D. 131. L. 392.

of the disease decreased. It increased with the onset of autumn rains, slush and frost, forcing locals to isolate themselves inside cramped and dirty rooms as soon as possible¹. The doctors had to write constantly about diphtheria, "which has taken deep roots and is unfortunately uprooting many young victims among the villagers"². The only thing they were able to determine unmistakably was the direct dependence of the growth of the disease on the sanitary conditions of the area, the time of year and the cultural level of the population. It developed more strongly in places where cloistered and ignorant peasants were apathetic towards disinfection measures and isolation of sick children, lived in neglected and crowded villages. In a number of villages of Melitopol uyezd, adult villagers allowed their children to visit infected houses and wear the clothes of dead children, and priests exposed the bodies of the dead in churches in open coffins³ [8]. The rural poor were indifferent and sometimes hostile to all the measures of doctors to prevent and counteract the disease. Timid attempts to educate the peasants, to persuade them to protect at least their children from the effects of the disease, were often met with the same answer: "If God does not want it, it will not die"⁴. Disinfection in the districts was most often carried out formally, haphazardly, on an incident-by-incident basis. Premises for isolation of the sick and means to compensate for burnt clothes and property were not prepared in advance. Such hastily conducted measures did more harm than good⁵. Cases of thoughtlessness and inaction on the part of the authorities were also found in the cities⁶. At the end of 1886, members of the sanitary commission of Berdyansk city government did not believe the words of the city doctor, refused to recognise the development of the diphtheria epidemic and to take timely preventive measures in the hotbeds of infection. They came to their senses only when time was lost and the incurable disease spread throughout the city and led to numerous deaths. Seeing the futility of all

measures taken and the helplessness of doctors before the epidemic, peasants refused to seek medical help in time, as a result of which catarrhal inflammations of the mucous membranes of the mouth and pharynx could develop into gangrenous form and further into diphtheria⁷ [8]. The disease continued to ravage the towns and villages of Taurida Governorate every year, killing and maiming the youngest and most vigorous, especially among the poor people, who were often left without the only breadwinner of the family or their beloved children.

Despite such terrible statistics of mortality from epidemic diseases, the situation in Taurida Governorate at the end of the 19th century was not quite so gloomy and unpromising. Just at this time, positive dynamics became noticeable in a number of cases. Although doctors could not yet develop a complete set of measures to eradicate diphtheria, the first guesses about measures to prevent and combat the disease, the first successful attempts to overcome it with the least losses were already observed. From the end of the 1870s, medical personnel began to propose as temporary measures the hiring of spacious houses in villages to isolate the sick in order to create shelters with exclusively female staff [8]. They also proposed the idea of dividing villages into small sanitary districts and electing trustees from among respected literate peasants⁸ [2, 8]. These officials, endowed with broad authority and real power, were obliged to go immediately to infected areas at the first rumours of an epidemic or even suspicion of it, to take the most decisive measures in the fight against disease, and to bring the guilty to legal responsibility. The duties of the social guardians included: organising such urgent measures as disinfecting dwellings, burning the clothes and belongings of the sick or dead person, isolating healthy children in a spacious room, and preventing any contact of the infected person and his caregivers with healthy people. The destruction of personal linen was carried out at the discretion of a doctor, a paramedic, or a specially selected commissioner from the district zemstvo and town council, but not otherwise than after a preliminary assessment of the property and payment of prompt compensation to the villagers.

¹ SACR. F. 27. O. 12. D. 115. L. 127; SACR. F. 27. O. 12. D. 130. L. 438.

² SACR. F. 27. O. 12. D. 113. L. 85.

³ SACR. F. 27. O. 12. D. 113. L. 220.

⁴ SACR. F. 27. O. 12. D. 130 L. 438.

⁵ Ibid.. L. 438, 438 ob.

⁶ SACR. F. 27. O. 12. D. 113. L. 484 485.

⁷ Ibid. L. 85; SACR. F. 27. O. 12. D. 121. L. 381.

⁸ SACR. F. 27, O. 12. D. 113. L. 85–86; SACR. F. 27. O. 12. D. 131. L. 228 ob; SACR. F. 60. O. 1. D. 45. L. 26, 26 ob.

The fire had to be built in such a way that it did not damage neighbouring fields and buildings. An authorised representative of the zemstvo or a sanitary trustee had to be present at the burning, and a report signed by two witnesses had to be drawn up. The room where the sick person was kept was subjected to prolonged airing and drying, the walls were re-whitewashed and painted. Furniture and household utensils were disinfected with sulphuric acid vapour and carbolic solution. The house where healthy children were isolated for the duration of the spread of the disease had to be dry and spacious enough. It had to be out of a crowded area, belong to a widow or childless couple, and have proper ventilation and heating. The children were supervised by a reliable hired woman or sister of charity. All these preventive measures, as well as punitive measures against those who ignored and failed to comply with them, were carried out in close co-operation between three components: the sanitary and medical staff, district zemstvo or town councils, and the local police.

In the late 1880s — early 1890s small sanitary stations headed by wardens or trustees, covering several neighbourhoods or up to 20 yards, were available in the cities of Evpatoria, Feodosia and Kerch, in many villages of Berdyansk¹ [7, 8]. Public controllers of “public health” reported to doctors and paramedics about the slightest suspicion of the emergence of contagious diseases among the inhabitants, especially children, carried out activities on disinfection, cleaning of yards, houses and rubbish pits, medical and health education. Their resolute activity made it possible to take timely measures against epidemics, to prevent deaths from them in many cases, to improve sanitary conditions, and to persuade the population to seek medical help more often. Gradually, specific measures were developed to alleviate the incidence of diphtheria and reduce its mortality² [8]. In addition to isolation and disinfection measures, silver nitrate, cold compresses on the neck, quinine solution and excitatory drugs (wine, valerian) were used. The best results were obtained by persistent inhalation of hot

water vapours from an early stage of the disease and disinfection of the body every 15 minutes by gargling or swallowing chlorine or sodium salts. Unfortunately, doctors recognised this method of treatment as very long, tedious for both the patient and the caregivers, expensive and therefore not always possible. Some of the zemstvo medical staff considered that providing peasants with more nutritious food rich in vitamins and raising the general cultural level of the village were important steps in the fight against the disease.

On the part of the Taurida Governorate and district zemstvo boards, measures against the spread of diphtheria consisted in allocating considerable sums of money to compensate the poor for destroyed property, organising burnings and disinfection, remuneration to commissioners, hiring isolation rooms and carers. It also took a lot of effort and money to send specially trained sanitary detachments to the infected areas. Only the participants of the Tauride provincial zemstvo meeting of 1880 allocated 5000 rubles for the organisation of burning of things and other measures to prevent the spread of diphtheria and another 10 000 rubles for general measures such as disinfection and isolation³. If the funds from the reserve treasury ran out and the epidemic persisted, the chairman of the provincial zemstvo had the right to call an Extraordinary Provincial Zemstvo Assembly. At joint meetings of the members of the provincial zemstvo and doctors, it was proposed to select one large and most populous place where the disease was developing as a testing ground and to send there a sanitary detachment consisting of a doctor, two paramedics and three sisters of mercy, who were not constrained by any instructions. To facilitate the registration of cases, special forms were introduced to record the name and age of the patient, time of onset, methods of treatment and outcome.

Not the least role in improving the sanitary condition of various institutions and places in Taurida Governorate was played personally by the provincial medical inspector, State Councillor Fyodor Fedorovich Bruns, who made annual inspection trips and checks (Fig. 1). In 1867 he inspected the “military half-hospital” in the district town of Perekop, “free pharmacies” in Perekop and Yalta⁴; in 1869 — pharmacies in

¹ SACR. F. 27. O. 12. D. 131. L. 120, 121 SACR. F. 27. O. 12. D. 155. L. 509–510, 555, 555 об, 675; SACR. F. 27. O. 12. D. 353. L. 84, 103; SACR. F. 27. O. 12. D. 393. L. 81, 87.

² SACR. F. 27. O. 12. D. 104. L. 75, 76; SACR. F. 27. O. 12. D. 115. L. 184–185, 388 об.

³ SACR. F. 60. O. 1. D. 44. L. 15.

⁴ SACR. F. 27. O. 12. D. 84. L. 56 об, 229 об, 230.



Fig. 1. F.F. Bruns. 1860–1870-th photo. Simferopol, the Crimea. From Euler's private collection

Рис. 1. Ф.Ф. Брунс. 1860–1870-е годы. Крым, г. Симферополь. Фото из частной коллекции семьи Эйлеров

Karasubazar and Berdyansk¹; in 1874 — medical institutions of Melitopol²; the following year — them and Levitan's pharmacy in Yalta³. When the inspector examined the Kerch pharmacies in 1879, he found that they were in satisfactory condition and did not reveal any significant shortcomings⁴. He recorded many disturbances (disgusting condition of cesspits, garbage-filled yards, supplying water to the Jewish bathhouse from the sewage ditch, selling expired fish) when he inspected the town of Karasubazar (nowadays Belogorsk) by order of the governor⁵. Another inspection of the pharmacy of this city inspector conducted in 1883⁶. In the same year F.F. Bruns during his inspection of Yalta recorded a lot of sanitary viola-

tions in the city slaughterhouse, where a large number of cracks in the cemented floor stank of blood and manure, and excrement went down the chute into the sea⁷. The unbearable odour in the room could make bystanders cramp, vomit and feel dizzy. He immediately informed the members of the sanitary commission of the city government of these deficiencies and ordered them to be remedied without delay. The doctor also inspected the recently closed city hospital and was convinced that its premises were cramped and dilapidated, the floors were rotten, the roof leaked, the doors did not close tightly, and there was a shortage of medicines, linen and clothing. The medical inspector demanded from the city and district authorities to open a hospital in Yalta which would be worthy of the city's status as a resort town. On the instructions of the city government or the initiative of local doctors known in the province doctor repeatedly conducted audits and inspections of the bazaar, yards, streets and various establishments in Simferopol. He was one of the first to declare to the public about the need for the provincial city to develop its own set of sanitary regulations. Thus, F.F. Bruns personally contributed to improving the development of medicine and sanitary affairs in Taurida Governorate.

The long-standing idea of creating provincial coordinating bodies was realised in 1894, when the Taurida Governorate Zemstvo established the Taurida Medical Council and Sanitary Bureau⁸ [2, 3]. The council consisted of the chairman of the provincial zemstvo, two representatives (a physician and a zemstvo member) from each district and a sanitary doctor — secretary. Sometimes the provincial inspector and the chief doctor of pious places could be admitted to the meetings. The main powers of this structure included: the comprehensive consideration of issues related to the medical system of the province; coordination of smallpox inoculation and epidemic control; compilation of a report on the state of the zemstvo medicine system once every three years. Its main tasks were proclaimed to be "generalisation of district medical organisations, assistance to them and proper development of zemstvo sanitary affairs in the province". The Medical Council met as cases

¹ SACR. F. 27. O. 12. D. 87. L 133 ob, 339.

² SACR F. 27. O. 12. D. 101. L 179.

³ SACR. F. 27. O. 12. D 104. L. 39 ob, 47, 47 ob.

⁴ SACR. F. 27. O. 12. D 115. L. 84.

⁵ SACR. F. 26. O. 1. D. 26995. L. 113 ob.

⁶ SACR. F. 27. O. 12. D. 121. L. 39 ob.

⁷ SACR F. 27. O. 12. D. 121. L.285–288.

⁸ SACR. F. 27. O. 12. D. 353. L. 100, 101, 103; SACR. F. 27. O 12. D. 393. L. 86–88.

accumulated, but at least three times a year. The Sanitary Bureau, which consisted of one doctor and three counters, printed “Journals of the meetings of the Tavrichesky Medical Council”, distributed medical brochures on measures to combat diseases, prepared monthly summaries of the progress of contagious diseases, developed projects of proposed improvements and changes in the districts, was engaged in the compilation of annual provincial reports, processing of statistical data, weekly transmission of data on sanitary inspections of cities. Its monthly bulletins, in addition to current information and statistics, began to publish the works of local physicians of a scientific and practical nature. For the first time, reports on the current state of local zemstvo medicine were introduced into practice, debates on the most acute problems: smallpox vaccination, measures to combat diphtheria, syphilis and other dangerous diseases, the system of providing the rural population with permanent medical care, prescription of medicines from abroad. After the establishment in Simferopol all-Gubernskiy controlling bodies stopped the transfer of reports and reports made in dozens of ways. It became much easier to control the development of epidemics, to observe their dynamics by months and take timely preventive measures, to determine the number of doctors and paramedics, the size of medical plots, to conduct district and provincial sanitary measures. The powers of doctors and sanitarians became clearer and more defined, and sanitary-executive commissions were established in each uyezd and in a few cities.

CONCLUSION

To sum up the development of the medical system in Taurida Governorate in the late 1860s — early 1890s, it can be noted that it became more and more organised, systematic and orderly every year. The connection with modern science was more and more closely established, the latest ways and methods of disease control were introduced. Doctors began to pay more and more attention to sanitary business and the collection of current statistics, realised the need for one-person reporting and the creation of centralised coordinating bodies in Simferopol. Ordinary people in towns and villages developed more trust in medical personnel, especially specially trained paramedics and

nurses. Taken together, this led to a significant reduction in mortality and marked a significant advance in the development of medical science and practice. Not the least role in this process was played by the multifaceted active work of the provincial medical inspector F.F. Bruns.

As a proof of the undoubted effectiveness of many years of work of Taurian doctors in the “public health” one of the reports of the Society of Simferopol doctors of 1895 can be cited [5, 8]. During the diphtheria epidemic raging that year, three vaccines were successfully tested on children and led to favourable results. Their developers were the St. Petersburg Imperial Institute of Experimental Medicine, the prominent French epidemiologist Louis Pasteur and the German physician Emil Adolf von Behring, who was awarded the first Nobel Prize in physiology and medicine in 1901. The use of these serums gave hope of defeating the dangerous epidemic in the near future and once again convinced the medical profession that all their efforts had not been in vain.

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