

Olga Gaidai

Faculty of History, University of Warsaw

Faculty of History, Petro Mohyla Black Sea National University, Mykolaiv, Ukraine

ORCID 0000-0002-7181-9908

Tadeusz Srogosz

Faculty of History, Jan Długosz University in Częstochowa

ORCID 0000-0002-1964-8232

The Evolution of Views of Franz Karl Heintz, the Quarantine Physician of the Right-Bank Ukraine, Concerning the Reasons of Occurrence, Course and Treatment of the Plague

In the years 1780–1781, Doctor Franz Karl Heintz hesitated about the diagnosis for a long time. Initially he thought he had encountered cases of ‘rotten diseases’. However, taking into account the experience of other European countries, he knew one had to be certain about the diagnosis given, especially when it concerned the most terrible infection. Only after some time he admitted was dealing with the plague. He was still optimistic though. He claimed that herbal medicaments were efficient in many cases. In 1786, already as the quarantine physician of the Right-Bank Ukraine, he sensibly assessed the potential of medicine regarding the plague. Although he based his project on the contemporary medicinal state of the art that went along with the 18th c. ideal of medical knowledge (he was a follower of Hippocrates, i.e. a supporter of humoral pathology), the most important components of the project were police-order in their character, which found a permanent place in the medical thought of that time.

Keywords: evolution, views, the plague, quarantine physician, right-bank Ukraine, Franz Karl Heintz

Słowa kluczowe: ewolucja, poglądy, dżuma, lekarz kwarantann, prawobrzeżna Ukraina, Franz Karl Heintz

Franz Karl Heintz was undoubtedly one of the most eminent doctors at the end of the Polish-Lithuanian Commonwealth. Historians provide little information on his life and activity. Stanisław Kościński wrote that he was a government quarantine physician in

Ukraine, and then he settled in Stalin, Lithuania, where he focused on his multiple interests in anatomy, zoology and geology.¹ Among others, he wrote the natural history of the elk, which he included in the description of his geological journey along the Dnieper River and the Pripyat River in 1787 (printed in Hamburg in 1802). The historian of the South-Eastern Borderlands of Poland, Antoni Józef Rolle, who mistook Heintz for a pharmacist and misspelled his surname into Hincz, wrote that he had established a Masonic lodge 'Perfect Silence.'²

The publications by Tadeusz Srogosz offer us the biggest amount of information concerning Heintz. The author writes that in the years 1780–1781, he worked alongside Antoni Dzieduszycki, the proxy of the Permanent Council, on containing the plague and subsequently he occupied the position of the quarantine physician.³ The activities of Dzieduszycki and his affiliates reduced the spreading of plague to a few hotbed and resulted in relatively low mortality. Srogosz stated that Heintz authored a work on the plague from the years 1780–1781, yet he did not devote many pages to his activities, writing broadly about medical digressions going along the humoral theory.⁴ Thus, his work during the plague of 1780–1781 calls for a more detailed analysis. Later on, Heintz became the court physician of Szczęsny Potocki and settled in Tulczyn.

The analysis of publications to date shows the need for further research on doctors of German origin in the Polish-Lithuanian Commonwealth, including physicians whose task was to combat the plague. For instance, historiography does not offer an explicit opinion on the activity of one of them, Doctor Johann Wilhelm Möller. In his book concerning the plagues during the reign of Stanislaus II Augustus, based on the reports of tax officials, Srogosz criticized Möller's work,⁵ whereas Ignacy Z. Siemion, based on the physician's notes, gave a favourable opinion on his anti-plague activity.⁶ Doctor Möller was born on 21 October 1748, in Hamburg, and passed away in 1806 r. in Harzberg am Harz.⁷ He obtained his degree of medical doctor in Göttingen. He became a member of the Mineralogical Society in Jena, he was also a member of the Environmental Society in Westphalia.⁸ He obtained the position of counsellor at the court of Stanislaus II Augustus who also probably endeavoured to bring him to the Polish-Lithuanian Commonwealth. Möller manifested various scientific interests. He published two works on his journeys to the Eastern Borderlands of the Polish-Lithuanian Commonwealth and New Russia – *Reise von Wolhynien nach Herson in Russland im Jahre 1787. Mit Kupfern und einer Landkarte* (Hamburg 1802) and *Reise von Warschau nach der Ukraina im Jahre 1780 und 1781. Sie beschreibt die Lebensart der Einwohner, die Naturproducte, den Handel des Landes und s. w., und die daselbst geherrschte Pest-Epidemie* (Harzberg am Harz

1 S. Koźmiński, *Słownik lekarzów polskich*, Warszawa 1888, s.v. Heintz de Palkenau Franciszek Karol.

2 A.J. Rolle, *Wybór pism*, vol. 2, ed. by W. Zawadzki, Kraków 1966, p. 198.

3 T. Srogosz, *Dżuma ujarzmiona? Walka z czarną śmiercią za Stanisława Augusta*, Wrocław 1997, p. 84–85, 118–124.

4 Ibidem, p. 85.

5 Ibidem, p. 102–108.

6 I.Z. Siemion, *Jana Wilhelma Möllera dwie podróże badawcze na kresach Rzeczypospolitej*, "Analecta" 2000, no 2, p. 114–116.

7 Deutsche Digitale Bibliothek, www.deutsche-digitale-bibliothek.de/person/gnd/1028085559 [accessed 15.10.2022].

8 S. Koźmiński, *Słownik*, s.v. Moeller Jan Wilhelm.

1804).⁹ Furthermore, Möller translated a work by Wilhelm de Beauplan into German (Wrocław 1780) and a booklet by George Baker on the 1762 London plague situation into Polish (Warsaw 1789). Möller was also the one who translated the work by Jakob Sims titled *Bemerkungen über epidemische Krankheiten : denen einige Anmerkungen über die Nerven- und böartigen Fieber angehängt worden sind* (Hamburg 1775), which probably became an argument for choosing him as a doctor to combat the plague of 1780.

However, it is hard to describe Möller's practical activity as a successful one, at least as far as his obligations of the office physician were concerned (there is no information regarding his private practice). On 23 October 1780, following the recommendations of Warsaw physicians, the Crown Treasury Commission appointed Möller to the position of quarantine physician on the Dniester River, entrusting him with different tasks, in particular taking the inhabitants of the Krzywe Lake and Swinna region under his medical care.¹⁰ The chief revenue magistrature equipped the quarantine physician with instructions and other necessary documents, appointing paramedic Kiciński (first name unknown) to be his assistant. Revenue officials, especially province superintendents and Jerzy Jabłoński, writer of Józefgród (Yuzefhrad, Balta) customs chamber, stated that Möller and Kiciński were indolent and unprofessional.¹¹ Their journey from Warsaw to Józefgród took them three weeks despite the fact that on their way they received all the help possible. Once the physicians reached the epidemic region, initially they decided to be accommodated far from the quarantine area, i.e. in Bershad. Doctor Möller insisted on receiving the second part of his remuneration and on sending three more paramedics from Warsaw as well as money for the purchase of new medicaments or delivering them from Berdychiv pharmacy.

Only in December 1780, after the intervention of revenue authorities and employing a local paramedic, did Möller take any action. In the reports sent to the Crown Treasury Commission, he explained his initial tardiness and at the same time was full of optimism. He was of the opinion that the plague-stricken exiled into the fields could be successfully treated and 'there is great hope that low temperatures will put an end to these illnesses.'¹² At the same time, revenue officials informed that the medicaments brought by the quarantine physician were useless. Möller showed a complete lack of responsibility when he planned to send isolated people home for New Year. His activity finished when the action was called off in February 1781.

In this paper, the original spelling of Heintz's name shall be used. Polish historiography treats the role of representatives of other nations in the history of the Polish-Lithuanian Commonwealth differently, sometimes automatically including their achievements in Old Polish culture regardless of the extent of their polonisation. Historians usually do not take nationalistic reasons into account (though this factor cannot be ruled out completely), but they mainly face interpretation difficulties. These difficulties derive from the complexity of origin issues and national awareness of particular figures, not to mention scarce information concerning their place of birth, education or even professional career. Foreign-

9 K. Estreicher, *Bibliografia polska XIX stolecia*, vol. 3, Kraków 1876, p. 153.

10 Archiwum Główne Akt Dawnych [AGAD], Zbiór Popielów, nr 81, p. 10–18, 31–36, 47–53, 65–75.

11 T. Srogosz, *Dżuma*, p. 106–108.

12 AGAD, Metryka Litewska, dz. VII, nr 34, p. 84.

sounding surnames do not always reflect one's nationality. Many physicians with German-like surnames came from Pomerania (most often from Gdańsk and Elbląg) or Greater Poland (most frequently from Leszno and its environs and from Wschowa), and generally they were Protestants. We observe a similar phenomenon when it comes to physicians of Jewish origin, who sometimes decided to convert (most often to Catholicism, rarely to Protestantism) as it opened many doors to their professional career in the army or administration. For instance, Doctor Emanuel Wolf, born in Prague was Jewish.¹³ When he arrived to the Polish-Lithuanian Commonwealth, he held his medical practice in Leszno for twelve years, where in 1762 he converted to Protestantism. At the time of the Four-Year Sejm, he acted as chief headquarters physician.

Srogosz attempted to identify Heintz's place of birth, posing a question whether it was a place called Palkenau or Falkenau.¹⁴ Nowadays in Germany there are a few places called Falkenau, but none called Palkenau. It is most probable that it was a place in today's Czech Republic called Sokolov (formerly known as Falknov nad Ohří) in the region of Karlove Vary that used to be inhabited by Sudeten Germans. The German name of the place is Falkenau an der Eger, yet Palkenau¹⁵ was the name used before.

Between 1780 and 1781, Heintz worked on containing the plague together with Dzieduszycki,¹⁶ the proxy of the Permanent Council. The activities of Dzieduszycki and his charges reduced the plague spreading to few focuses and resulted in relatively low mortality. Later on, Heintz became the court physician of Szczęsny Potocki and settled in Tulczyn.

Right after the 1780–1781 epidemic, Heintz wrote a work whose manuscript in Latin survived to this day.¹⁷ In the preface, Heintz, who was a free mason, dedicated his work to Ignacy Potocki, Grand Master of the Polish Kingdom and the Great Duchy of Lithuania.¹⁸ He wrote as follows,

When the Polish Republic of 1780 put its trust in me during the epidemic of illnesses in Volhynia and Podolia, I considered it noble to fight against them with all the available preventative measures, I had to follow various procedures in case of that epidemic. Yet, as a long time ago I had already decided to contribute positively to the public benefit, I dedicate some of these lectures to hear the view that no one shall be worthy of You, the Most Eminent and the Greatest Master. If this work turned out to be useful and to your liking, it would be the greatest satisfaction for a very humble writer.¹⁹

13 M. Bałaban, *Lekarze żydowscy w dawnej Rzeczypospolitej*, [in:] *Żydzi w Polsce Odrodzonej*, vol. 1, ed. by I. Schiper, A. Tartakower, A. Hafftko, Warszawa 1933, p. 298.

14 T. Srogosz, *Między wojną a modernizacją. Studia z dziejów kresów południowo-wschodnich Rzeczypospolitej w XVII–XVIII wieku*, Częstochowa 2016, p. 252.

15 *Sudetendeutsches Ortsnamenverzeichnis. Amtliches Gemeinde – und Ortsnamenverzeichnis der nach dem Münchener Abkommen vom 29.9.1938 (Grenzfestlegung vom 20.11.1938) zum Deutschen Reich gekommenen Sudetendeutschen Gebiete*, Bad Godesberg 1963, p. 16.

16 T. Srogosz, *Między wojną*, pp. 84–85.

17 Biblioteka Narodowa w Warszawie [BNW], ms II.6843, F. K. Heintz de Palkenau, *Descriptio morbi epidemici putridi in dictionibus Reipublicae Polonicae a decima septima die octobris anni 1780 usque ad septimam martii diem 1781 grassantis*. Quotes from this work are given in translation.

18 At that time there were unification processes in free mason circles. 'Catherine under the Northern Star' ('Katarzyna pod Gwiazdą Północną') was transformed into the Great Lodge. Further history of the initiated unification was strongly affected by Ignacy Potocki – a great Lithuanian writer, president of the Permanent Council, who at the mason meeting of 16 February 1780 was appointed Grand Master.

19 BNW, ms II.6843, p. 2.

Further on, Heintz described the state of the illness, i.e. the symptoms, causes and nature of the epidemic. He stated that the epidemic of rotten diseases in the Polish-Lithuanian Commonwealth from 17 March 1780 to March 1781 had been circulating and infecting people regardless of their status. The disease started with a bitter taste in one's mouth, headache and vomiting. On the second day, the ill were terrified and some of them kept asking about experiences of the plague from ancient Mesopotamia and England in the 17th c. On the third day, they reported nausea, a piercing chest pain, decreased immunity, breathing difficulties. Heintz noticed that the patients had changed eyes and did not distinguish colours. The aforesaid symptoms persisted on the fourth and fifth day, but on the sixth and seventh day the ill felt strong pains in the abdomen and below. In very few cases they suffered from severe swelling of parotid glands and their colour became more intense. Similarly, the patients' thighs became bigger, flushing and painful 'due to nervous tension'.²⁰ Sometimes flushing disappeared after using natural medicaments, but the patients who did not comply with the guidelines suffered from convulsions and no physician could help in that case. As a result, they passed away after a few hours. In accordance with his initial optimism and belief in the humoral theory, Heintz wrote,

In other words, nature formed foul liquid, which was combated with the help of art or force of nature, generally, the organism was fighting. It means that after administering internally and externally the Peruvian medicament, pus turned into good liquid. When it was possible, some patients suffering from giddiness, splitting headaches and bitterness in their mouth were cured, but others were administered an infusion from Peruvian copra to get their health back.²¹

According to the humoral theory and Thomas Sydenham's views on harmful fumes (miasma), Heintz emphasized environmental and hygienic determinants of the epidemic. He wrote that

The cause of this contagious disease were sudden changes in the atmosphere from extreme heat to extreme cold and vice versa, complexes of water reservoirs located close to each other, which most often emit rotten fumes leading to rotten fevers.²²

Peasants lived in stuffy air, in low-ceiling cottages, where small doors and windows were rarely open, stoves were heated up, rooms were filled with smoke from melted lard. The moment one approached a given farm, one shall think the air was the cause of unhealthy fumes. Peasants inhaled the same air at night. Heintz quoted the opinion of an eminent Viennese physician, Joseph von Quarin, who recommended inhaling one pound or more from the atmosphere depending on air humidity. On the other hand, while breathing, peasants filled the air with rotten particles. During their sleep, they paid no attention to diarrhoea and other physiological processes. The most unbearable thing was urine in their beds as it diffused a terrible stench. A type of diet also contributed

20 Ibidem, p. 4.

21 Ibidem, p. 5.

22 Ibidem.

to the spreading of diseases. Heintz claimed that the only valuable food that should be continuously consumed was onion. He regarded foods made from Saracen flour (buckwheat flour) as unobtainable, but he severely criticised lack of any vegetables in one's diet. Even if these people were isolated and given proper food, they would come back to their old dietary practices very fast, not paying attention to the epidemic or other circumstances.

Heintz hesitated for a long time before giving his diagnosis. Initially he thought he had encountered cases of 'rotten diseases'. However, taking into account the experience of other European countries, he knew one had to be certain about the diagnosis given, especially when it concerned the most terrible infection. He wrote as follows: 'If there have been a few symptoms indicating the bubonic plague among peasants, it is certain they are also exposed to putrid fevers, and I have been maintaining my opinion in this matter for a long time.'²³ However, shortly afterwards he claimed he should verify the diagnosis concerning the plague infection. He added, 'I have seen carbuncles and other symptoms. Having seen those things, I changed my mind and I did not protest in order to agree with others.'²⁴ Yet, he was still very optimistic. He stated that herbal medicaments were effective in many cases. This preventive care of Heintz did not go unnoticed. His dilemma concerning the diagnosis were not unique. For example, Andrzej Karpiński stated that for early-modern chroniclers and municipal writers comprehending the character of the epidemic was almost impossible. At that time infectious diseases were not differentiated. The plague was occasionally defined more precisely but 'also in this case, without more accurate data, we cannot be sure that the author of information really meant the diseases caused by *Pesteurella pestis* as the Latin or French word *pestis* means as a matter of fact any disease.'²⁵ Difficulties with diagnosing the plague at the end of the 18th c. were analysed by Srogosz.²⁶

Further on, Heintz went on to the rules of isolation and his obligations regarding that issue. He visited houses every day and put them in a register. If a given number of people did not turn up the following day, he asked where that person was during his visit and register taking, 'so I knew well whether everyone was healthy, whether someone was ill or dead.'²⁷ Without Heintz's permission it was forbidden to wander outdoors as well as perform any commercial activity, which concerned healthy people too. If a given person was isolated in their house, they were supposed to open the windows and doors three times a day for half an hour, and sprinkle all the rooms with vinegar. In case of someone's death, their clothes worn during the illness and other items used by them were to be burnt, and their empty house had to be sanitized. The windows and doors were to be open for three days, wooden floors had to be swept and washed with lye, the walls had to be cleaned or washed. The goods that were not food products had to be treated with lye,

23 Ibidem.

24 Ibidem, p. 6.

25 A. Karpiński, *W walce z niewidzialnym wrogiem. Epidemie chorób zakaźnych w Rzeczypospolitej w XVI–XVIII wieku i ich następstwa demograficzne, społeczno-ekonomiczne i polityczne*, Warszawa 2000, p. 21.

26 T. Srogosz, *Kłopoty z diagnozowaniem dżumy (na przykładzie epidemii w okresie panowania Stanisława Augusta Poniatowskiego)*, [in:] *Jednostka, rodzina i struktury społeczne w perspektywie historycznej. Księga jubileuszowa dedykowana Profesorowi Cezaremu Kukli z okazji 45-lecia pracy naukowej*, ed. by P. Łozowski, R. Powiat, Białystok 2022, p. 735–743.

27 BNW, ms II.6843, p. 7.

whereas money was to be cleaned with vinegar. Other goods, which could not undergo this procedure had to be aired for eleven days and treated with smoke. Of course, the ill had to be separated from the healthy, the first were supposed to leave for the fields but had to be provided with the best conditions possible. Concluding this fragment of his dissertation, Heintz wrote,

And many were freed from the embrace of death, which could be proved by the fact that since the outbreak of the epidemic, from 10 December till 7 March, only seventy five people that were treated, died in the fields when the fieldwork season started.²⁸

These calculations were accompanied with a detailed table.

Heintz's work was completed with thorough descriptions of five disease cases. Each of them consisted in giving information about an ill person's sex, age, symptoms, how they changed and applied therapy, including prescriptions.

The first case concerned a 24-year-old man in good shape and of amiable temperament, initially suffering from headaches, a bitter taste in his mouth and no thirst. He also had buboes on his skin.²⁹ For vomiting, Heintz prescribed him ten grains of ipecacuanha³⁰ and one grain of tartar emetic.³¹ Unfortunately, he saw no improvement and additionally, on the third day, the patient felt extreme anxiety, had breathing difficulties and suffered from diarrhoea. The physician administered a mixture to be taken every two hours, made from water, two ounces³² of orange juice and seven ounces of *salis polichrestj*.³³ On the fourth day, the patient's pulse was slower, anxiety slightly decreased, but he was not able to do anything too strenuous, there were concerns that he may die. Thus, Heintz administered a mixture consisting of the following ingredients: sweet balm, two pinches of sage, a pinch of hyssop (*Hyssopus officinalis*).³⁴ Due to the slowed down pulse, the patient was supposed to drink regularly another mixture of two ounces of powder from Peruvian bark,³⁵ one ounce of good wine, eight ounces of boiled barley water, and a different one consisting of two pounds of boiled barley, spirit of vitriol.³⁶ The physician expected some

28 Ibidem, p. 9.

29 Ibidem, p. 10.

30 *Carapichea ipecacuanha*, also known as ipecacuanha is a small bush, which grows in the rain forests of Middle America and South America. Its root acts as an expectorant and triggers vomiting. Once it enjoyed great popularity in Europe.

31 Antimony potassium tartrate, also known as tartar emetic – organic chemical compound, potassium-antimony salt of tartaric acid. Used as an emetic and in treatment of tropical diseases.

32 Pharmaceutical ounce – about 31.1 grams. Danuta Raj, Katarzyna Pękacka-Falkowska, Maciej Włodarczyk and Jakub Węglorz (*The Real Theriac – Panacea, Poisonous Drug or Quackery?*, "Journal of Ethnopharmacology" 2021, no 281, 114535, Table 1) stated that an ancient pharmaceutical ounce was 30 grams.

33 Broad-spectrum homeopathic substance in the form of salt.

34 A plant species from the family of labiates.

35 *Uncaria tomentosa* – in Peru known as *Una de gato*. One of the most popular Peruvian plants known as *Vilcacora*. Due to its unique properties, *Uncaria tomentosa* has been considered a sacred plant since the times of the Inca Empire. There are many Indian legends about its miraculous influence. The combination of alkaloids makes it an exceptional broad-spectrum plant with remarkable effectiveness. For instance, it modulates the organism's immunological system in a natural way, ensures good functioning of joints. For treatment, its leaves are used, but above all, the internal part of the bark as it solely contains a complete range of medicinal substances.

36 Oil of vitriol – former name of concentrated sulphuric acid, which is a transparent, glassy-looking liquid with oily texture. This name was also used for hydrated sulphates of divalent metals.

improvement in the patient's condition during seven days of the illness. Unfortunately, during his visit he detected serious breathing issues, there were concerns that the patient would suffocate, he was suffering from a chest pain. Heintz saw sunken eye sockets and a mixture of various symptoms on his neck and chest (he did not state which symptoms were discerned). The patient was to be left in peace and administered a mixture of barley with wine vinegar. During his visit on the ninth day of the illness, the physician learnt that the previous day the patient had gone into a deep coma. The neighbors considered him dead, but the surgeon examined his soles, checked synapses and detected weak signs of life. During the following days, the patient's condition worsened, accompanied by severe pain and swelling. Heintz ordered the surgeon to cover the swelling with a layer of dressing and a plaster, pouring oil 'to stuck the pores' over it.³⁷ Despite this treatment, the swelling reddened and on the eighteenth day it was filled with pus. On the twentieth day, the ulcer perforated and the physician was informed that some horrible liquid oozed away. Heintz made the wound slightly bigger, found the bottom of the ulcer covered with dirty mucus, used water with basil mixed with camphor dissolved in spirit, and then he dressed clean ulcers. Further on, the ulcers were treated with Peruvian bark, and scars with an extract containing camphor powder. The patient was completely healed on the forty third day of his illness.

The second case concerned a young, 17-year-old man, who had complained about a headache and a bitter taste in his mouth since the very beginning of the epidemic.³⁸ Initially, Heintz prescribed a mixture consisting of half a pound of spring water, four ounces of antimony–potassium tartrate and rubital syrup.³⁹ As a result, his tongue got clearer, but the patient suffered from stomachache, was red in the face, his pulse got faster and strong. Due to the fact that the patient vomited blood, the physician recommended administering every two hours Peruvian bark powder with half a drachm⁴⁰ of cooked barley and vinegar extract. On the fourth day of the illness, the patient experienced a sneezing attack, which resulted in the rupture of a small vessel in the nose and high blood loss. The blood loss made the patient very weak, thus Heintz prescribed another medicament to him: an infusion of lemon, two drachms of cinnamon tincture, and an ounce and a half of citrus syrup, administered in the amount of two spoons every two hours. What is more, the patient was not supposed to drink wine but whey. On the sixth day, on the left side of the body, there was a lump with visible swelling, which was treated with a diachil⁴¹ plaster as well as a larger softening plaster. What is more, the patient was nauseous, had such serious breathing difficulties that there were concerns he might pass away. Instead of Peruvian bark, Heintz recommended administering less cinnamon tincture. On the eleventh day, the inflammation turned into gangrene, the cuticle went off and underneath one could notice a layer of pyoderma. With the help of an ointment

37 BNW, ms II.6843, p. 14.

38 Ibidem, p. 15.

39 Marshmallow-raspberry syrup, prescribed mainly for the treatment of upper respiratory tract ailments and sore throat accompanied by higher temperature, and as a protective, coating, cough soothing agent.

40 Former unit of measure of different value, the so-called Attic drachm equalled 4.3 grams. Pękacka-Falkowska (*Dawne miary aptekarskie*, www.wilanow-palac.pl/dawne_miary_aptekarskie.html [accessed 2.10.2022]) states that ancient pharmaceutical drachm equalled 3.75 grams.

41 Diachil plaster was formerly used in surgery; it contains lead oxide serving as antiseptic in case of pyoderma.

and camphor mixed with oleander and water from quick lime mixed with wine vinegar the wound was healed and the patient was saved from death. Despite that, the physician recommended using Peruvian bark for twenty days.

The third described case regarded a melancholic 48-year-old peasant, who, for a few days, felt limb tension, pain in his scrotum, accompanied by nausea and vomiting.⁴² Heintz visited him on the second day when he was sweating, which he compared to English sweating sickness. The patient had a dirty face, sunken shoulder blades, 'in a nutshell, it was a man not feeling well, overcome with apathy, with too relaxed a stomach.'⁴³ The physician administered fifteen grains of powdered ipecacuanha root,⁴⁴ which made the patient vomit six times and suffer from diarrhoea. To stop these symptoms the patient was to take every hour the following medicament: two ounces of lemon liquid, 15 grains of camphor, two drachms of powdered gum arabic, one ounce of opium poppy syrup (*Papaver somniferum*).⁴⁵ This medicament did not prove effective and Heintz added to the aforesaid mixture water from lime flowers, which rendered better results. Additionally, the patient was given a Peruvian bark extract, processed orchid bulb with opium poppy syrup. After four days the patient remained alive but suffered from considerable intestinal pain. That piece of information finished the description of the third case.

The fourth case concerned an about 28-year-old man, who suffered from a severe headache and a back pain as well as vomiting.⁴⁶ During the patient's examination, Heintz felt pulse under thick skin, enlarged veins, extreme anxiety. The left side of the patient's body was covered with brown mucus, his eyes were slightly red. Due to the dominating inflammation, Heintz ordered to draw eight units of blood and administer the laxative consisting of: eight ounces of couch root infusion, three drachms of *Salis Polichresti* and two ounces of mercury honey. On the third day, the patient felt tired and weak, had a dry cough, sore throat and breathing difficulties. Examining the patient's throat, the physician noticed that it was covered with mouth ulcers,⁴⁷ so he recommended the following mixture to be applied externally and internally every two hours: eight ounces of rue infusion and two drachms of lucca⁴⁸ liqueur. What is more, he recommended one more mixture containing eight ounces of cooked barley malt, two ounces of Peruvian bark powder and two drachms of arcani duplicati.⁴⁹ Instead of usual drinks (probably wine), the patient was to drink whey with vitriol. On the fourth day the patient thanked Heintz profusely. He stated he felt almost good, unfortunately he felt an unpleasant pain under his armpits. Before that, there was some hope of improvement. The physician detected

42 BNW, ms II.6843, p. 18.

43 Ibidem.

44 See footnote 27.

45 A species of an annual crop plant from the poppy family.

46 Ibidem, p. 20.

47 Mouth ulcers (aphthae) are changes occurring in the oral cavity, on the mucous membrane of the cheeks, tongue, sublingual area and lips.

48 Alcohol liqueur associated with an Italia city of Lucca.

49 In a book by Charles Lucas, published in London in 1756, we find a description of this substance: 'In like manner, in preparing the arcanum duplicatum from nitre and vitriol distilled by a violent fire, or calcined together; in this preparation, the acid of the vitriol quits its own metallic base, to unite with the alkaline base of the nitre, whence, a neuter salt, like tartar vitriolate, is obtained; but, it may, and often does, happen, that some portions of the nitre and vitriol remane quite unaltered; and then, there are three salts in the washings of the calcined mass; to wit, nitre, vitriol, and the neuter salt, called arcanum duplicatum' (Ch. Lucas, *An Essay on Waters: In Three Parts*, London 1756, p. 70).

swelling which was treated with a plaster made of bladder, 'where I put mixed beetles, but when I visited my patient after dinner to check the effectiveness of this irritant, I found him dead and his body was covered here or there with black patches.'⁵⁰

The symptoms and treatment of a 10-year-old Jewish girl were presented as the fifth and, at the same time, the last case.⁵¹ Initially, the girl reported headache and vomited bile ten times. Yet, the following day she complained about a severe pain at the sides of the chest. When Heintz visited her on the third day, first he listened to people from her environment, concluding that she was still suffering, her face gloomy and tired due to nausea. He recommended giving the patient every half an hour a bowl of extract consisting of two drachms of slices of stipiturus⁵² bird (without its legs), which was to be cooked in enough water for a quarter of an hour, adding two drachms of *Salis Polichresti* and one ounce of lemon syrup. On the fourth day, she complained about a burning pain in different places of her body. Although the symptoms were not visible in the morning, six red, bulging marks appeared in the evening. The physician recommended administering every hour a spoon of syrup made from an ounce and a half of Peruvian bark, one drachm of *Salis Polichresti* and eight ounces of cooked barley. The visible marks turned into dry gangrene, which made Heintz cook almond peels, which he served with rue extract and a very saturated solution of Peruvian bark, and cover gangrene places with petals of honey rose. Despite administering ten drops of liquid laudanum⁵³ and maintained cauterization which had an antiseptic function, convulsions continued. Thus, the physician took red mercury⁵⁴ out of the case and mixed it with camphor. Yet, the convulsions did not stop until the physician administered a large amount of camphor emulsion. While soothing the tremor, he ordered to prepare the mixture with the following ingredients: eight ounces of cooked Peruvian bark, two ounces of good wine and one ounce of syrup from the bottle (no information which syrup was used), which had to be taken every two hours, two spoons. What is more, the girl was to drink lemonade instead of her everyday drink. Heintz did not write if the plagued girl's treatment finished with a positive result. At the end he only wrote that 'in this way, continuing with Peruvian bark powder and water with camphor I treated wounds.'⁵⁵

Heintz claimed that herbal medicine was efficient in many cases. Yet, the frequency with which he used herbs was quite low in comparison with other contemporary herbals, for instance *Zielnik* ('The Herbal') by Simon Syrenius from 1613, which was analysed by Anna Trojanowska⁵⁶ with regard to using herbs at the time of the plague. Actually, only rue, wine, cinnamon and camphor were used both in therapies recommended by Heintz and Syrenius.⁵⁷

During the reign of Stanislaus Augustus Poniatowski, posts of state physicians were established in the Polish-Lithuanian Commonwealth. These posts had a dual character:

50 BNW, ms II.6843, p. 22.

51 Ibidem.

52 Stipiturus – a type of a bird from the subfamily of Australasian wrens (*Maluridae*) in the family of *Maluridae*.

53 An ancient name of opium liqueur containing about 10% of opium.

54 Since antiquity till today there have been many stories about mythical red mercury. Maybe it is about mercuric iodide, which is reddish, or mercuric sulphide.

55 Ibidem, p. 25.

56 A. Trojanowska, *Rośliny lecznicze stosowane w czasie morowego powietrza opisane w „Zielniku Szymona Syreniusza (1613), „Medycyna Nowożytna. Studia nad Kulturą Medyczną” 2022, vol. 28, no 1, p. 108.*

57 Ibidem, p. 97–99.

physicians were employed within the framework of anti-epidemic security measures (temporarily or permanently) or they were appointed to the posts of the so-called physicians of territorial units (after 1789). Undoubtedly, Heinz's earlier anti-pandemic activity and stay in Tulczyn (in 1784, Szczęsny Potocki purchased from Józef Gabriel Stempkowski the leadership of a Ukrainian and Podolian division and the rank of lieutenant general) had a major impact on appointing him to the position of the Ukrainian Province physician (quarantine physician) by the Permanent Council on 4 February 1785.⁵⁸ Administratively, the quarantine physician was subject to the revenue administration, and directly to the superintendent of the Ukrainian Province, Franciszek Lasocki. In reality, he consulted his benefactor Potocki and presented him his various initiatives. During the first months of his work, Heintz kept sending laconic reports to the revenue authorities, mainly writing about the epidemiological situation beyond the borders of the Polish Republic, and he was also preparing a large system of anti-plague preventative measures at the southern-eastern borderlands. His project was presented on 9 January 1786 to lieutenant general Szczęsny Potocki.⁵⁹

At the beginning, the quarantine physician discussed the reasons of the plague spreading from the Turkish territory. He reckoned that the plague was spreading to the Ukrainian Province because of merchants and chumaks trading in fish and salt, and above all, people coming back on foot from gainful employment. Due to that reason, the inhabitants of border territories from Zhvanets to Targowica were exposed to the danger the most.

In Heintz's opinion, poor living conditions and improper nutrition favoured epidemics. Further on: too densely inhabited small cottages with low ceilings and small windows made Ukrainian village dwellers exposed to various 'humour' fumes. In particular, these negative phenomena intensified in the autumn and winter, when peasants with numerous family members stayed in tightly bolted and dirty rooms. In the summer, when peasants worked in the fields, the plague was not a threat any more. Cottages were defectively built as they were deeply set in the ground (up to the windows), which in the autumn and winter, exposed their dwellers to harmful mineral fumes. If the plague touched a given household, peasants immediately heated their places with stoves and drank vodka with pepper, 'which makes their blood boil and makes it more susceptible to rot.'⁶⁰ As the last resort, blood was drawn, which weakened a given organism and led to their death as the powers of nature could not help any more. An additional negative factor was covering the infected people with furs or feather quilts. Other family members got infected by their ill relative's breath and dusty and dirty possessions they had left. Peasants' nutrition also left much to be desired as they used fatty food contributing to bad blood. They rarely ate any vegetables and fruit except sauerkraut and beetroots that the Ruthenians use to cook borsch. The plague was also spread by drinking contaminated water from springs and rivers which flew through muddy meadows. An organism is susceptible to the disease because of drunkenness, with vodka, mead and Volhynian wine being most frequently drunk.

58 AGAD, Metryka Litewska, dz. VII, nr 53, p. 59–59v. Srogosz discussed the project in his publications (T. Srogosz, *Dżuma*, p. 121–124; idem, *Między wojną*, p. 236–238).

59 AGAD, Metryka Litewska, dz. VII, nr 154, p. 353–354v.

60 Ibidem, p. 353.

After initial remarks regarding the causes and conditions of the plague occurrence in the Ukrainian province, Heintz went on to preventive measures. In the first place, he recommended that people traveling on foot, especially seasonal workers should not be admitted to the territory of the Polish-Lithuanian Commonwealth as they roamed from village to village and spread the disease. That is why a directive should be issued to forbid to accommodate people for a night from 1 August unless they submitted a certificate of coming from a healthy region issued by the leader of a military unit, a property owner or assembly authorities, and if that was impossible at least from a Catholic or a Orthodox priest. What is more, Heintz put forward a motion to close the border from Bohopil to Zhvanets from 1 August. The inhabitants of Poland coming back from the Turkish territory were to undergo quarantine. The rule should be binding even when there was no information about the plague. Then, the quarantine period should be short and the travellers should receive appropriate certificates. The quarantine physician argued that these rules should not surprise anyone as in other European countries there were similar ones.

According to Heintz, enforcing the closure of borders with Turkey would not be possible without building solid quarantine structures in Bohopil, Józefgród, Raszków and Cekinówka or (according to the other version) in Jampol (Yampil), Mohylov and Zhvanets. Quarantine units should be located far from cities, in the open area, not in valleys. The whole area should be fenced, dug in and protected so that no one could go out without appropriate authorities' permission. Within this area, patients undergoing quarantine should be provided with clean accommodation and sheds for previously aired and smoked goods. Behind the fence, there should be another fenced and dug-in area for horses and cattle. Patients should be isolated in a separate, spacious building. Drinking water was to be delivered from a well through a pipe or drainpipe and pumped in order to avoid any contact among different groups under quarantine.

Quarantine personnel consisted of: a military commandant with soldiers, a revenue official, a paramedic, a steward (also called a tax collector), a *traktier* (chef) running a hash house (eating place), a caretaker of water devices and cleaners for airing and smoking goods. These people could not leave the quarantine area until the last traveller left it. They also could not touch objects left at that place. Heintz emphasized that he had already issued a set of rules for paramedics, yet he stressed once again their obligation to examine travellers in the presence of the commandant and revenue official. He called everyday check-ups superficial, but every third day he ordered paramedics to perform thorough examinations during which examined patients were to take their clothes off. The steward and the *traktier* should provide patients with decent food from the money collected at different points of the admission process.

In the further part of the project, the physician of the Ukrainian province talks about anti-epidemic measures beyond places dedicated to quarantine, especially those concerning rural population. Peasants should air their cottages on a daily basis, and objects that may have had contact with the plague should be smoked with juniper or steam coming from vinegar poured over a hot stone. Construction habits should be changed too so that windows were placed high from the ground. As far as nutrition was concerned, one's diet should contain a lot of vegetables and fruit (meals with an acidic taste). The physician addressed the clergy to spread awareness among the faithful about proper nutrition as dietary negligence could lead to the situation in which 'people perish because of their

negligence.⁶¹ Rural group leaders were obliged to report to their superiors all cases of the plague. If one's death was suspected to have been caused by the plague, it was forbidden to touch any objects in the cottage unless linen and hemp fabrics were washed in running water, and fur and wool were smoked with sulphur, juniper and vinegar steam. In the vicinity of bigger places, fenced areas should be prepared for isolating potential patients. In the isolation area, temporary cottages could be built from brushwood and clay, yet equipped with stoves and windows. Then, it should be easier for paramedics to provide plague patients with medicaments and other medical aid. Heintz was convinced that if people exiled to the fields knew about the comfort of the place, they would not hide disease symptoms. Finally, they should be saved by the coming of a severe winter.

As far as the project was concerned, the quarantine physician noticed that so far food and firewood supplies had constituted a weak point of anti-epidemic measures. Unfortunately, military units would not cope with the issue on their own, which was noticeable in Józefgród, where the inhabitants died of hunger once a sanitary cordon was organised. These duties should be taken over by more eminent 'citizens', i.e. the borderland nobility authorized by the Polish Sejm.

Bibliography

Archival sources

Archiwum Główne Akt Dawnych w Warszawie [AGAD], Metryka Litewska, dz.VII, nr 34, 53, 154; Zbiór Popielów, nr 81.

Biblioteka Narodowa w Warszawie [BNW], ms II.6843, F.K. Heintz de Palkenau, *Descriptio morbi epidemici putridi in dictionibus Reipublicae Polonicae a decima septima die octobris anni 1780 usque ad septimam martii diem 1781 grassantis*.

Printed sources

Lucas Ch., *An Essay on Waters: In Three Parts*, London 1756.

Rolle A.J., *Wybór pism*, vol. 2, ed. by W. Zawadzki, Kraków 1966.

Critical literature

Bałaban M., *Lekarze żydowscy w dawnej Rzeczypospolitej*, [in:] *Żydzi w Polsce Odrodzonej*, vol. 1, ed. by I. Schiper, A. Tartakower, A. Hafftko, Warszawa 1933.

Estreicher K., *Bibliografia polska XIX stolecia*, vol. 3, Kraków 1876.

Karpiński A., *W walce z niewidzialnym wrogiem. Epidemie chorób zakaźnych w Rzeczypospolitej w XVI–XVIII wieku i ich następstwa demograficzne, społeczno-ekonomiczne i polityczne*, Warszawa 2000.

Koźmiński S., *Słownik lekarzów polskich*, Warszawa 1888.

Raj D, Pękacka-Falkowska K, Włodarczyk M., Węglorz J., *The Real Theriac – Panacea, Poisonous Drug or Quackery?*, "Journal of Ethnopharmacology" 2021, no 281, 114535, DOI 10.1016/j.jep.2021.114535.

61 Ibidem, p. 354.

- Siemion I.Z, *Jana Wilhelma Möllera dwie podróże badawcze na kresach Rzeczypospolitej*, "Analecta" 2000, no 2, p. 109–134.
- Srogosz T., *Dżuma ujarzmiona? Walka z czarną śmiercią za Stanisława Augusta*, Wrocław 1997.
- Srogosz T., *Kłopoty z diagnozowaniem dżumy (na przykładzie epidemii w okresie panowania Stanisława Augusta Poniatowskiego)*, [in:] *Jednostka, rodzina i struktury społeczne w perspektywie historycznej. Księga jubileuszowa dedykowana Profesorowi Cezaremu Kukli z okazji 45-lecia pracy naukowej*, ed. by P. Łozowski, R. Powiat, Białystok 2022, p. 735–743.
- Srogosz T., *Między wojną a modernizacją. Studia z dziejów kresów południowo-wschodnich Rzeczypospolitej w XVII–XVIII wieku*, Częstochowa 2016.
- Sudetendeutsches Ortsnamenverzeichnis. Amtliches Gemeinde- und Ortsnamenverzeichnis der nach dem Münchener Abkommen vom 29.9.1938 (Grenzfestlegung vom 20.11.1938) zum Deutschen Reich gekommenen Sudetendeutschen Gebiete*, Bad Godesberg 1963.
- Trojanowska A., *Rośliny lecznicze stosowane w czasie morowego powietrza opisane w „Zielniku Szymona Syreniusza (1613)*, "Medycyna Nowożytna. Studia nad Kulturą Medycyną" 2022, vol. 28, no 1, p. 75–108, DOI 10.4467/12311960mn.22.002.16210.

Websites

- Deutsche Digitale Bibliothek, www.deutsche-digitale-bibliothek.de/person/gnd/1028085559 [accessed 15.10.2022].
- Pękacka-Falkowska K., *Dawne miary aptekarskie*, www.wilanow-palac.pl/dawne_miary_aptekarskie.html [accessed 2.10.2022].

Funding

Dr Olga Gaidai, studying the views of Franz Karl Heintz, realised the objectives of the scholarship granted by the German Historical Institute in Warsaw.

Olga Gaidai – visiting researcher at the Faculty of History of University of Warsaw, associate professor at the Faculty of History of Petro Mohyla Black Sea National University, Mykolaiv, Ukraine, grant holder of the Polish Academy of Sciences, the German Historical Institute Warsaw, and IDUB New Ideas 3B in Priority Research Area IV at the University of Warsaw.
e-mail: osvita13@ukr.net

Tadeusz Srogosz – professor at the Faculty of History of Jan Długosz University in Częstochowa
e-mail: tadeusz@tsrogosz.pl

Article submitted on 1 December 2022

Article accepted on 4 May 2023

Ewolucja poglądów Franza Karla Heintza, lekarza kwarantann w prawobrzeżnej Ukrainie, na temat przyczyn występowania, przebiegu i leczenia dżumy

W latach 1780–1781 doktor Franz Karl Heintz długo wahał się w sprawie diagnozy. Początkowo myślał, że napotkał przypadku 'zgniłej choroby'. Czerpiąc jednak z doświadczenia innych krajów europejskich, wiedział, że trzeba być uważnym podczas diagnozy, zwłaszcza gdy dotyczyła najstraszniejszej choroby. Dopiero po pewnym czasie przyznał, że ma do czynienia z dżumą. Mimo to był dobrej myśli. Twierdził, że w wielu przypadkach pomagają lekarstwa ziołowe. W 1786 r., już jako lekarz kwarantann prowincji ukraińskiej, uważnie oceniał możliwości medycyny wobec dżumy. Mimo oparł swój projekt na współczesnym stanie medycyny, który współgrał z XVIII-wiecznym ideałem wiedzy medycznej (Heintz był zwolennikiem Hipokratesa, tj. wspierał medycynę humoralną), najważniejsze elementy projekt miały charakter policyjny, który znalazł stałe miejsce w myśli medycznej tego okresu.