



LEO SISSERMANN – A LIFETIME OF SERVICE TO PATIENTS AND A FACET IN THE HISTORY OF MEDICINE IN THE CAUCASUS

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ABSTRACT

This article is a sequel to a recent article by S.B. Manyshev in this publication, which dealt with the life and work of Leo Sissermann, a medical doctor who was born in Austria, practiced for the large part of his career on the territory of modern-day Ukraine and moved to the Caucasus relatively late in life. He became a senior resident at the Pyatigorsk Military Hospital and developed a strong interest in balneology, the study of the effect of mineral waters on human health. The main milestones in the history of Pyatigorsk, the development of the Caucasian Mineral Waters and their scientific study are briefly outlined as background to the work of Dr Sissermann. Brief outlines are given of the lives of Leo Sissermann's sons.

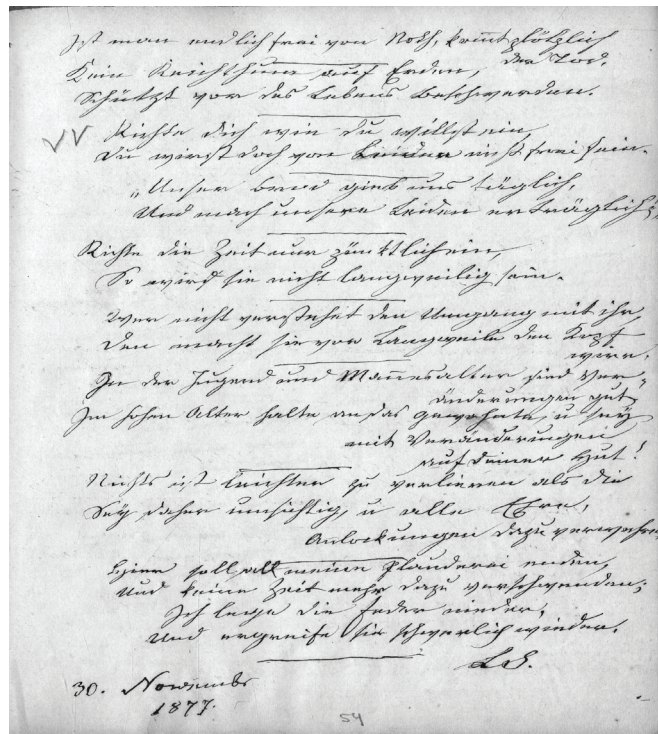
By the beginning of the 19th century Russia experienced an acute shortage of qualified doctors. A large proportion of the population still depended on folk medicine for treatment [1]. To overcome this problem, a two-pronged approach was taken: development of a domestic medical education system and an active program of recruitment of doctors from abroad [2]. Conditions offered to foreign doctors were generous. Pages of Russian medical history are full of medics with German, English, French and other Western European names. One such recruit was Leo (or, as he became known in Russian, Lev Karlovich) Sissermann (in this article we use the German spelling of the

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surname). He was born on 21 November 1803 in Brody, a city that is now in western Ukraine, but was at the time a part of the Austro-Hungarian Empire. The region that the city is in was known as Galicia and had been ceded to Austria following the first partition of the Polish-Lithuanian Commonwealth in 1772. There is little information about Leo Sissermann's family or early life, other than that he was an orphan who had not "received assistance from anyone and had to take care of his own education" [3]. He underwent his initial medical training at the University of Lemberg (now Lviv), the

oldest tertiary institution on the territory of modern Ukraine. In 1827 he entered the medical faculty of the University of Vienna, from which he graduated as surgeon in February of 1828. He then attempted to establish himself in general practice (possibly in his native Brody), but without a great deal of success. He attributed this to his lack of worldliness and the need to please his patients. "Russia was at the time an Eldorado for doctors and I went there in 1829", he writes in his notebook that is preserved at the National Library of Russia in St. Petersburg [3].



A page from Leo Sissermann's notebook

"I had to pass another doctor's examination there. In 1830 in Kharkov I was approved as a free practising doctor. Things were not all that good in the Russian California, and free practice did not earn enough to give my children appropriate education. I therefore joined the Military Hospital in St. Petersburg and

served as a civil and military doctor from 1832 until 1865 without interruption. In the Civil Service I was in my element. You don't need the favour of the general public and can therefore work more independently and freely. Ambition and punctuality in carrying out one's duties are important. These personality traits,

together with my natural flexibility to disciplinary demands helped me to achieve a standing which, although not brilliant, was very satisfactory for my earlier neglected education”[3].

In June 1833 Sissermann was appointed as a junior resident at the Military Hospital in Kamenets-Podolsky (now Kamianets-Podilskyi) [4], which is an ancient city in western Ukraine and was then part of the Russian Empire. By a curious coincidence, the place of his new posting was only some 200 kilometres distant from his birthplace of Brody, though on the Russian side of the border. After two years he was transferred from the military to the civil administration and posted to the town of Letichev (now Letychiv), some 150 kilometres to the North-East of Kamenets-Podolsky, as the *uezd*² physician [4]. Two years later he was in Kamenets Podolsky again, first as the *uezd* physician, progressing to senior physician and member of the Podolian Medical Board. He also served as the physician of the Kamenets-Podolsky prison and was a member of the Guardianship Society of Prisons. This society had been established in 1819 under the patronage of Emperor Alexander I as an initiative of an English merchant and philanthropist Walter Wenning (1781-1821) [5]. It was during this time that Sissermann actively participated in smallpox vaccination programs in the Podolian Governorate. Smallpox vaccination had been introduced in Russia in 1762 when the Empress Catherine I famously became the first person in the country to be vaccinated, so as to promote public confidence in

the procedure. It was widely practiced by the 1830s, and Leo Sissermann was later awarded a gold medal by the Free Economic Society for his work in this field in the Podolsk Governorate [6]. In 1851 Sissermann was again transferred from the civil to the military administration and appointed as the Chief Physician of the Military Hospital in the city of Novomirgorod in Central Ukraine, and five years later to the city of Chuguev (now Chuguiv) in Eastern Ukraine. Throughout this time his ranks and standing steadily increased.

In June 1861 Leo Sissermann was appointed Senior Resident of the Pyatigorsk Military Hospital. Pyatigorsk is a city in Northern-Central Caucasus that is famed for its mineral waters. It is situated in a picturesque area, from which the mighty Mount Elbrus, the highest mountain in the Caucasus, is visible. The name of the city is derived from the Russian words “five mountains”, as it is overlooked by the five peaks of Mount Beshtau, whose name itself also means “five mountains” in Turkic. The first reliable mention of the area of modern Pyatigorsk can be traced to the Arab travelling merchant and chronicler Ibn Battuta, who wrote in 1334: “In these five mountains there are hot springs, in which the local Turkic people wash themselves. Anyone who washes in these waters is healed of illnesses” [8]. Over the centuries, the region passed from the rule of the Golden Horde to that of the Crimean Khanate, to the Principality of Great Kabardia, which was allied with Russia in its struggle against the Crimean Khanate.

² An *uezd* was a minor administrative division in imperial Russia.

The beginning of modern scientific interest in the Caucasian mineral waters and their utilisation in modern therapy can be pinpointed to the year 1756, when a Dr William Hewitt (presumably, an English medic in Russian service) took a party of ten ill soldiers from Kizlyar fortress in Dagestan to the Pyatigorsk area (a distance of more than 370 kilometres) for treatment at the hot springs [8,9]. This was followed in 1773 by a visit from Johann Anton Güldenstädt, a German naturalist and explorer in Russian service. He examined and described the hot springs. Visits by other scientists followed. In 1774, at the conclusion of the Russo-Turkish War, control over Kabardia (including the Pyatigorsk area) passed to Russia under the Treaty of Küçük Kaynarca. In 1780, a fortress, Konstantinogorskaya, was erected on the territory of modern Pyatigorsk, and shortly afterwards the first wooden bathhouse was constructed on the banks of the Hot Spring nearby for use by military personnel. In 1803 Emperor Alexander I issued a decree, which proclaimed the Caucasus mineral waters to be of State significance and ordered their organisation. This date is considered to be the foundation date of the Caucasus mineral water resorts. However, construction of new facilities was delayed by a number of years because of an outbreak of bubonic plague in nearby villages, and development of the area was haphazard and slow [10]. It received a real impetus when General A.P. Ermolov was appointed Commander-in-Chief in the Caucasus. He visited the hot springs area and was appalled by the ramshackle condition of the settlement. He ordered the construction of new

baths and associated buildings. Swiss-Italian architects, brothers Guiseppe and Giovanni Bernardazzi were appointed to design the functional buildings and lay out the town [10]. (It is of interest to note that Guiseppe Bernardazzi settled in Pyatigorsk, married the daughter of the senior physician at the thermal baths, and their son Alexander became an eminent architect, who designed many outstanding buildings in Russia) [11]. A swamp at the foot of Mount Goryachaya became a boulevard lined with linden trees, and elegant houses were built along it. Roads were improved, trees planted and several parks established. The number of visitors from Central Russia steadily increased. Such was the town, in which Leo Sissermann found himself in 1861.

As noted by S. Manyshv [6], military hospitals were at the time the basis for providing qualified medical service to the civilian population of the region. Inevitably, Leo Sissermann became deeply involved in the emerging science of balneology and became a member of the Russian Balneological Society (RBS). It should be stated that, while treatment with mineral waters had become very popular throughout Europe by the 19th century, scientific knowledge of their effects was largely empirical and widely scattered among individual researchers and practitioners [12]. There was an acute need of unifying and sharing the information. It was for this purpose that in 1863 the Chief Physician of the Caucasus Mineral Waters, Dr. S.A. Smirnov (1819-1911) founded the Russian Balneological Society and became its first chairman. The Charter of the Society was approved

by the Viceroy of Caucasus, Prince A.I. Baryatinsky, on 5 July, 1863 [13]. The Charter states that “The Society considers it its duty to (a) promote everything that may be related to the special study of Caucasian and other Russian mineral waters; (b) assist every independent balneological research, providing to the authors the ability to publish their original work, and (c) promote the scientific, practical and professional interaction between practicing doctors located both at Russian and foreign waters” [13]. The Society published a journal, “Transactions of the Russian Balneological Society”.

Leo Sissermann was an active participant in meetings of the RBS, presenting both specially prepared reports, as well as his articles published in other publications [6]. Thus, at the meeting of 30 November, 1864, he presented a detailed discourse on the controversial subject of skin absorption of components of mineral waters. He presented two opposing theories that were prevalent at the time: according to one, mineral waters and their active ingredients are absorbed through the skin and enter the blood stream, producing therapeutic effects; according to the other, these effects are caused by the generally stimulating action of mineral waters on the trophics of tissues, aiding in metabolism. Sissermann leaned towards the second theory and gave detailed reasons for his opinion, which was later published in the Transactions of the RBS [6]. At another meeting, he presented a discourse on a similarly controversial subject of the respiratory effects of mineral waters [6]. At yet another meeting, he discussed the

effectiveness of mineral waters in the treatment of paralysis, noting the lack of definitive evidence of the effectiveness of balneotherapy in the treatment of this disease and querying the mechanisms by which it could be effective [6]. As noted previously, the study of mineral waters in the first 60 years or so of their utilisation in the Caucasus had a largely empirical character; nevertheless, Sissermann considered it important to familiarize himself and other members of the Society with scientific literature of the preceding decades on the subject. For this purpose, he presented a detailed review of a doctoral thesis by M. Zabczynski at the Vilna (now Vilnius) Medical Surgical Academy in 1841. The thesis was in Latin and was entitled “De aquis minerilibus Caucasi in Magna Cabarda” (“On mineral waters of Caucasus in Greater Kabardia”). Sissermann found that the thesis gave a sufficiently detailed listing of the various streams and of the conditions being treated, but was critical of the lack of chemical analytical data in the thesis. He concluded that, overall, “the dissertation could not be considered satisfactory in view of the use by the author of the outdated humoral theory, lack of factual evidence of the effectiveness of individual groups of waters, and very superficial treatment of alkaline waters” (which Sissermann considered to be the most important group) [6]. As an aside, it should be noted that Sissermann’s review of the thesis testifies to his fluent knowledge of Latin (which, of course, was compulsory for medical professionals at the time).

Leo Sissermann retired in 1865 at the age of 62 and went to live with his son

Arnold in St. Petersburg. He continued to contribute to balneological publications and led an active life until his death in February 1882 at the age of 78.

It may be of interest to refer briefly to the lives and distinguished careers of Leo Sissermann's sons, whose biographies are intimately associated with the Caucasus. When his eldest son, Arnold (1824-1897), was only seventeen years old and full of romantic notions about the Caucasus gained from the works of Bestuzhev-Marlinsky, he and a friend sent off applications to the Governor of Tiflis (now Tbilisi) to be appointed to the Civil Service there. To the surprise of the young men, their applications were accepted, and in May of 1842 they set off for that distant land. After working as a humble clerk in the Chamber of Government Property, Arnold managed to obtain a position as assistant to the Chief of the Tushin-Pshav-Khevsur district, Major Prince M.I. Chelokayev (Cholokashvili), located in the town of Tianeti. For his outstanding service and participation in quasi-military operations, Arnold was awarded the St. George's Cross by the newly-appointed Viceroy of the Caucasus, Count M. S. Vorontsov, an unheard-of honour for a junior civil servant [7]. He later served as police chief in Ilisu (now in Azerbaijan). Through the patronage of Count (later Prince) Vorontsov, Arnold was transferred from the civil to the military service with a rank of cavalry cornet. He served in Chechnya, Dagestan and North-Western Caucasus, progressed steadily and reached the rank of Colonel. At the same time he was an active correspondent of a number of Tiflis, Moscow and St.

Petersburg journals, reporting on the progress of the war in the Caucasus and on the customs and traditions of the many diverse nationalities of the region.

Leo's second son, Julian, (1821-1901) served as Captain in the Pereyaslav Dragoon Regiment and was later a permanent member of the Nobles' Land Bank (Russian: Дворянский земельный банк) in Tiflis [14]. Leo's third son, Heinrich (1830-1907), was also a medic, having graduated from the St. Vladimir Imperial University in Kiev (Kyiv). He did not practice medicine, however, but pursued a legal career and served for a long time as prosecutor at the Stavropol Court. He was a well-known chess player, whose collection of chess problems is well known in chess circles. Leo's youngest son Karl, or Carl (1839-1888), while holding the post of Manager of the Governor's Office in Tiflis, was very instrumental in the preparation of the "Collection of Statistical Data on Tiflis Governorate", a pioneering compendium of statistical data, the first of its kind in Georgia. In 1876 he was appointed Vice-Governor, and in 1882 - Governor of the Stavropol Governorate, and in 1887 - of the Tiflis Governorate. His brilliant career came to an untimely end with his sudden death at the age of 49 [14]. These brief outlines of the lives of Leo's sons serve to illustrate the solid moral and cultural foundations that had been put down for them by their father, a poor orphan boy from Brody. The author of this article, his great-great-grandson, is a practitioner of environmental science, which is not unrelated to medicine.

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РЕЗЮМЕ**ЛЕО ЗИССЕРМАН – ЖИЗНЬ НА СЛУЖБЕ ПАЦИЕНТАМ:
ГРАНЬ В ИСТОРИИ МЕДИЦИНЫ НА КАВКАЗЕ**Зиссерман К.Н.¹¹Инженер-химик и эколог, работал в ICI Australia Ltd (ИКИ Австралия).

Данная статья является откликом на опубликованную в журнале The Caucasus Journal of Medical and Psychological Sciences статью С.Б. Манышева, в которой изложены основные вехи в жизни и карьере врача Лео Зиссермана - старшего ординатора Пятигорского военного госпиталя. Уроженец Австро-Венгрии, большую часть своей карьеры практиковал на территории современной Украины. В 1861 году он перебрался на Кавказ, в Пятигорск. Увлёкся бальнеологией, которая сформировалась и стала одним из главных разделов клинической физиотерапии во второй половине девятнадцатого века. Предметом его интереса было изучение влияния кавказских минеральных вод на здоровье человека. Стал членом учреждённого в Пятигорске в 1863 году Русского бальнеологического общества, подвижническая деятельность которого открыла новый этап в развитии бальнеологической науки. Является автором нескольких публикаций по бальнеологии. В статье также даны краткие сведения о жизни его сыновей.

Keywords: History of medicine, Caucasian Mineral Waters, Balneology, Leo Sissermann (Zissersmann)**რეზიუმე****ლეო ზისერმანი – პაციენტების სამსახურში გატარებული
ცხოვრება: კავკასიაში მედიცინის ისტორიის მიჯნაზე**ზისერმანი კ. ნ.¹¹ინჟინერ-ქიმიკოსი და ეკოლოგი, მუშაობდა ICI Australia Ltd-ში

მოცემული სტატია ეხმაურება ჟურნალში The Caucasus Journal of Medical and Psychological Sciences გამოქვეყნებულ ს. ბ. მანიშევის სტატიას, რომელშიც განხილულია პიატიგორსკის სამხედრო ჰოსპიტლის უფროსი ორდინატორის ექიმი ლეო ზისერმანის ცხოვრებისა და კარიერის ძირითადი ეტაპები. წარმოშობით იგი ავსტრია-უნგრეთიდან იყო, თუმცა თავისი კარიერის უმეტესი ნაწილი თანამედროვე უკრაინის ტერიტორიაზე პრაქტიკულ მუშაობას მოახმარა. 1861 წელს იგი კავკასიაში, პიატიგორსკში გადადის. აქ იგი გაიტაცა ბალნეოლოგიამ, რომელიც მეცხრამეტე საუკუნის მეორე ნახევარში ჩამოყალიბდა და კლინიკური ფიზიოთერაპიის ერთ-ერთ მთავარ შემადგენელ ნაწილად იქცა. ზისერმანის ინტერესის საგანს წარმოადგენდა ადამიანის ჯანმრთელობაზე კავკასიის მინერალური წყლების ზემოქმედების შესწავლა. იგი გახდა 1863 წელს პიატიგორსკში დაარსებული რუსეთის ბალნეოლოგიური საზოგადოების წევრი, რომლის მუშაობამაც ბალნეოლოგიის განვითარებაში ახალ ეტაპს დაუდო დასაბამი. ზისერმანი ბალნეოლოგიაში რამდენიმე პუბლიკაციის ავტორია. სტატია შეიცავს ასევე მოკლე ცნობებს მისი ვაჟიშვილების ცხოვრების შესახებ.

საკვანძო სიტყვები: მედიცინის ისტორია, კავკასიის მინერალური წყლები, ლეო ზისერმანი