

PRACA POGLĄDOWA
REVIEW ARTICLE

LUBNY PHARMACY AS A FOUNDATING STRUCTURE OF MILITARY FARMACY IN UKRAINE

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ABSTRACT

Introduction: Military pharmacy has always been a priority, being widely supported by the state with any social order. Field pharmacy development has always been considered a national safety factor. After creation of the numerous military commands and improvement of medical conditions relating to preserving and restoring the military men health, the importance of development of pharmacy as a science has only been increasing. The object of the study in this article is development of Ukrainian pharmacy as illustrated by the Poltava region example.

The aim: The study is research of the pharmacy development and its influence on to the neighbor fields within the Poltava region.

Material and methods: systemic approach, historical and dialectical methods, methods of theoretical and empirical learning.

Conclusions: The Lubny pharmacy was the basis for the military pharmaceutical service in Ukraine and triggered foundation of private pharmacies in the Poltava region. Also, the Lubny pharmacy had effected on the development of pharmaceutical service and industrial agricultural cultivation of medical plants in Ukraine.

KEY WORDS: history of medicine and pharmacy, medical education, medical training

Wiad Lek 2019, 72, 5 cz. II, 1126-1130

INTRODUCTION

Military pharmacy has always been a priority, being widely supported by the state with any social order. Field pharmacy development has always been considered a national safety factor.

The development of medical service of the military casualties attained a systemic characteristic within the Kyiv Rus period, which was reflected in the Kyiv Pechersk monastery chronicles. The notes evidence that in the 11th century some Kyiv Pechersk monastery monks provided medical service to other people. There were some accommodations in the monastery where people could receive free medical service. In the years that followed, the Vyshgorodskiy male monastery offered not only the service of treatment of the military men, but their medical and social rehabilitation.

After creation of the numerous military commands and improvement of medical conditions relating to preserving and restoring the military men health, the importance of development of pharmacy as a science has only been increasing. The military pharmacy development was based on the activity of the Lubny pharmacy.

AIM

The aim of the study is research of the pharmacy development and its influence onto the neighbor fields within the Poltava region.

MATERIALS AND METHODS

Materials and methods were include systemic approach, historical and dialectical methods, methods of theoretical and empirical learning.

REVIEW AND DISCUSSION

The demand for treatment of the military casualties during war actions is a fact characteristic for all society development periods. In ancient times the Slavs residing on the present Ukrainian territory widely used local medical plants for treatment. Systemic information presentations on the medical plants were found in literature sources of the 17th- 18th centuries, e.g. in hand-written herbal books, garden books and medical books, but no military guides were edited at those times.

The first specialized military pharmacy was founded in a town Lubny, Poltava region, in the 18th century. The order on foundation of the military field pharmacy with two ground areas was edited by Peter the Great on July the 29th 1709, just after the Poltava Battle.

This choice of the Poltava region, Lubny in particular, was predisposed for the wide spectrum of medical plants growing in the area [1].

The oldest mode of medical plant cultivation was represented with the monastery gardens, some of which cultivating not only vegetables, but the "green plants" beds. The first industrial provision and cultivation of medical plants in Ukraine dates back to the 18th century.

The pharmacy activity until the middle of the 20th century stipulated for preparation of the drugs directly in the laboratory room of the pharmacy [2]. The medication timber was represented with medical plants and minerals. According to the "Pharmacy Statute" of 1789, the pharmacies had to use only newly gathered and dried medical plants of proper pharmaceutical properties, the storage of which corresponded to the pharmaceutical requirements.

According to the European experience, the Russian Empire settled a network of new pharmacy gardens: in Moscow in 1706, in Lubny and village Terny of Poltava region in 1709, in Petersburg in 1713 p. Then pharmacy gardens were created in certain hospitals. Some pharmacy gardens were transformed into the university botanical gardens, including that one of the St. Volodymyr University. So, pharmacy gardens served as a drug timber source, and became medical and biological training departments. The functions of the university gardens included not only fighting epidemics but creating new technologies of drug preparation and development of pharmaceutical industry, with foundation of the new branch of biology: selection and protection of medical plants [3].

As the numerical force of the army and its engagement in active military actions were increasing, the need for medications was increasing as well [3]. At that time the Lubny county became the center of industrial cultivation and provision of medical plants. That region had the highest in Ukraine and Russia number of common chambers where farmers stored dried plants. According to one historic reference, 83% of local people dealt with provision of the plants [4].

One of the first publications on Poltava region plants was the book by N. Aranarenko (1848), in which the author described 95 local medical plant species. In 1853 M. Avgustinovych described 110 basic species of medical plants and 11 "less important" species. V. Belyavskij in 1893 described wild, cultivated and technical plants of Lubny County.

At that time military hospitals were provided with medications (according to the "Regulations on Keeping the Field Pharmacies") by two main pharmacies – the Moscow and Smolensk, and field pharmacies –the Lubny, Astrakhan and Smolensk ones [5]. According to the "General Regulations on Hospitals" (1735) all these pharmacies were to be run by "diligent, sober and scientifically able" people [5]. In Lubny it was Peterson who ran the pharmacy [6].

One of the first pharmacists in Lubny field pharmacy was I.I. Geuiter calling himself in his diary Yakov Markovych. There is a proof that the pharmacy was founded in 1721, basing on a complaint of house dwellers. Gradually the pharmacy was extending, requiring for new space. In 1754 the house owner Yevdokya Ivanyvna (Kulyakivna) Trotska wrote a complaint, stating that she was living in a separate additional building, but pharmacist Fermeren wanted to occupy the building. The complaint being considered, General Chancellor's Office ordered to the Lubny Regiment Chancellor's office to find a new flat.

The archives prove that Fermeren paid much attention to pharmacy. Since 1764 he took many efforts to create the Botanical garden as well as build new constructions for the field pharmacy and dwelling for the people who served it. He reached complete success with this in 1766 [7].

According to the archives and literature data the building of Lubny field pharmacy (one of the first three pharmacies opened in Russia) was constructed in 1720-1730. It consisted of the overground one-store brick building, situated

in the ancient "Tatar Path" which was the road to Tataria and Byzantium.

Throughout military actions the Army was supplied with medicines from the Lubny field pharmacy, which received medications from the basic pharmacies or bought timber from the farmers. The replenishment of regiment pharmacy stores was due to the medication purchase orders sent to Lubny. When military actions started, regiments could replenish their medication stocks from the field pharmacies accompanying the troops [8].

A. Obukhov in his guide "Medical Plant Timber of the USSR: Provision and Distribution", published in 1927, noted that in 1730 there was founded a permanent military pharmacy in Lubny, with two pharmacy gardens: the Lubny and Terniv ones. In 1736 the pharmacy was considered the best pharmacy of the Russian Empire [9].

Since 1767 the Lubny pharmacy extended its operation field by gathering wild medical plants, cultivation of medical plants and receiving financing for improvement of pharmacy garden farming. Further there were opened private enterprises of the plant timber production. In 1809 in Lubny there appeared a private pharmacy garden registered with the pharmacy of Frantz Delle. The successor of Delle was V.Belyavskij who by the end of the 19th century cultivated about 30 plant species in the garden of 10 desiatynas (a desiatyna was equal to 2.7acres) [3].

From the 10th of July till the 25th of August 1916 N.N. Montverde with his colleagues visited the Poltava County to learn on the medical plant provision. Except for visiting various county destinations and communication with the locals, they collected a unique herbarium of 78 medical plants species. They also brought 44 specimens of medical plants purchased from the collectors as they were sold and 35 specimens of the plants bought from local healer women in Poltava region. The plant specimens were passed to the Medical Plants department in the Museum of the Emperor Botanical Garden of Peter the Great.

The visit also resulted in the consideration of medical plants provision and cultivation by Counties. According to the author, all poor women residing in Lubny received proper reward for gathering medical plants in the suburbs. The gathered plants were purchased by the state pharmacy or other pharmacies of Poltava County. The Lubny pharmacy replenished its stores by 29 species of wild plants gathered by the pharmacy trainees [10].

Apart from this, selection studies were held on the territory of the Lubny and Terniv botanical gardens, which investigated properties of the plants: foxglove, wolfsbane, pod pepper, milkweed, belladonna, chamomile, mentha viridis, mentha piperita, poppy, salvia and black mustard to subsequently replenish pharmacy stores.

What refers to the subsequent history of the Lubny pharmacy and gardens, it is just known that in the 1860s the Military Department decided to close up the pharmacy, considering it as lossmaking, the medications to be delivered from abroad.

All the property of the pharmacy and laboratories was sold out; many items were sold for nothing, some were

factually destroyed. The buildings were transferred into ownership of the Engineer Department, the garden area was sold [10].

Despite all the above mentioned conditions, which prevented industry from development, the Poltava County was the first among other counties in cultivation of medical plants (more than 150 species) and the provision extent.

To rearrange the plant purchase and preserve the defined prices for the plants in 1912 there was opened the Lubny Partnership of the Rural Property, headed by secretary P.I. Gavsevych; the Partnership obtained medical plants from the farmers, processed them and released them for further industrial processing.

The farmers brought their plants to the County council buildings. The plants were kept in some warehouses which were previously state warehouses of the agricultural technique [11].

In the late 19th century the botanical garden didn't expand, so the appropriate pharmacies gathered wild plant species of medical plants. It was rather obvious that the pharmacy had to cultivate the plants on itself and manufacture appropriate amount of the drugs.

To reach the goal two pharmacy gardens were again founded by the pharmacy, represented with two medical plantations: the Lubny and Tekhnar town plantation, with total area equal to 50 desiatynas. On both plantations there were built separate drying and distilling devices, with the whole team assigned to the pharmacy. This way, Lubny became the medication-supplying center of all the Russian Empire Armed Forces. In the Lubny County there was also founded the free pharmacy of Frantz Delle, which also gathered the plants, and possessed its own plantation and laboratory. The trainees gathered the plants, though, local citizens also helped it to become successful [12].

The "pharmacy gardens" cultivated some medical plants which are still widely used nowadays, such as calendula, mentha piperita, foxglove, etc. In the pre-revolution period the Lubny agricultural fellowship managed sales and cultivation of the medical plants. There are literature evidences that in 1901 400 000kg of medical plants were sent abroad from Lubny. The total cost of the timber prepared and brought to Germany, England, France and other countries made up about 200 000 roubles. So, the first center of the medical plants cultivation research in Lubny was deliberately founded [4].

The delivery of medications required for special "prescription decks" (closed carts for transport of medications). In the middle and late 18th century all Kyiv hospitals and the general hospital were supplied with medications from the Lubny pharmacy [13].

In the war period pharmacies sold drugs for 3915roubles 84 kopeeks compared to 2967 roubles 16.5 kopeeks in the peaceful period [14]. The drugs were covered and hospitals maintained for the cost of some sources, e.g. one kopiyka was withheld from each wage rouble in all ranks (except for soldiers) [15-17].

In the early 18th century in Lubny there was situated a rehabilitation and medical examination center which

estimated ability of the rankers of the Hessen-Hamburgh Prince Corps to perform further military service. Physician Jogan Aruntsiy Attzari (personal physician of general - field marshal Chrystophor Antonovych Minikh) signed in Lubny (1736) attestation papers to the rankers of the Hessen-Hamburgh Prince Corps which retired after severe illnesses [18].

With the onset of the 7-year war (1756) there increased the need for medications, colonel of Lubny regiment Petro Danylovych Apostol permitted to locate in his house pharmacy, due to sad experience with his father, who was severely ill and to obtain medications for him it was necessary to ask the assessor of the Foreign affairs collegium, Semen Ivanovych Ivanov to send him the drugs from Moscow, from physician Bidlow.

The medications were dispensed to the hospitals by pharmacist Genrich Fermeren (1756), according to the catalogue, signed by the physician. The required pharmacy dishes were produced on the glassware factories of Hetman Pavlo Polubotok successors, delivered in 1758 by the trainee of Lubny pharmacy Mykhailo Ovsyannikov. In 1764 the Lubny pharmacy also functioned in the yard of colonel Zelenskij.

Just before the Russian-Turkish war, in 1768 in Lubny pharmacy there was settled a surgical instrument repairment office. The peasant serf Samiyo Novogorodtsev, a master in medical equipment, was assigned there from Petersburg. He founded the first medical instruments mechanical repairment and production workshop, collaborating with local blacksmiths as his apprentices [6]. Later he headed the pharmacy. His fellow country woman Hanna Petryvna Poltoratska (Kern by marriage) was a granddaughter of the famous court singer Mark Poltoratskyj and the muse of O.S. Pushkin. In 1800 she remembered him as "very old pharmacist who was kind and welcoming. He and his wife lived openly; they always very warmly welcomed the guests, like almost nobody at that time. Hanna Petrivna admired the cleanliness of the house as well [19].

In 1788 in Kriukiv, near Kremenchug, a field hospital was urgently established, which, in the war documents, was termed as the "general" one [20].

The medications were supplied in Kriukiv from the Lubny field pharmacy, as these were ethers, drops and other required drugs [21].

The Kriukiv hospital pharmacy was functioning even in the post-war period. In 1793 pharmacist Karl Toryan sent to Kriukiv from the Gradyzh field pharmacy, located in Lubny, "the required on May the 6th box with medical instruments set" [22]. The old instruments, which "due to their long use became useless, partly require for repairment, and partly don't require it at all", were transported to Lubny from Kriukiv by junior physician Podolskij" [3]. After this all the war-spoilt medical instruments were delivered to Moscow, to the Medical collegium department which re-sent them to the "instrumental master Ketsher" [23].

The co-workers of the Lubny pharmacy attentively followed all the news of medicine and pharmacy. In the late 18th century (1792) the first capital medical magazine "St.

Petersburg bulletin” was printed to be widely spread. In Lubny this magazine was received by pharmacist P. Gilderbant, in Lviv- headquarter physician Shchpu and pharmacist F. Bunge, in Kozelets –headquarter physician H.Krumreich, in Nyzhyn – pharmacist I. Tzygra, in Romny- headquarter physicians A.I. Wilmerding and G.Ye.Vihman [5].

Apart for the achievements, the Poltava pharmacists were the first to be nationally complained at in history of Ukrainian pharmacy. The first written complaint is kept in the Lviv Pharmacy Museum. It was written by T.G. Shevchenko in 1845 during his stay in Poltava region, in which he wrote to M.V. Rodzyanko: “As I was in Khorol, I caught a severe cold, but the glorious Mirgorod city possesses neither a physician, nor a pharmacy, though there is a city hospital situated on the main street” [19].

The progress of pharmaceutical technologies triggered many transformations in the military medical service in the late 19th century. In the period from 1887 till 1902 new catalogues of medications and medical items were approved. Particularly, in 1895 in the current catalogues of the Russian Army supply there first appeared ready to use antiseptic packages and tableted preparations. As pharmaceutical technologies were undergoing changes, the pharmacy realities in Lubny were changing as well. The foundation of the department of tableted drug production affiliated to the St.Petersburgh factory of military medical provision not only altered production of medical preparations, but all medical provision of the Army. This was a kind of a paradigm shift in pharmacy, particularly of the War time pharmacy, as it was no longer necessary to take to the war regions large carts with heavy pharmaceutical equipment for drug production. From that since on, it was always possible to provide the tableted medications to any place and at any time.

In the early 20th century the demand for medical plants decreased and the provision system declined. In 1915-1916 the Lubny botanical garden which was situated in the city suburbs, according to N.N. Monteverd, presented only slight resemblance of the former. No medical plants were grown there. But each spring the remaining medical plants were restored. There preserved a two-floored wooden barn which was previously used for drying of the medical plants, which was previously occupied with military stable.

This gave an impulse to quick development of the Lubny pharmacy as a scientific center of production and distribution of natural timber producing technologies of Ukrainian pharmaceutical industry.

CONCLUSIONS

The article describes factors of the pharmaceutical service development in the Poltava region, state importance of the Lubny pharmacy for providing military combativity of troops; proves its effect on the development of pharmaceutical service and industrial agricultural cultivation of medical plants in Ukraine. The Lubny pharmacy was the basis for the military pharmaceutical service in Ukraine and triggered foundation of private pharmacies in the Poltava region.

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Authors' contributions:

According to the order of the Authorship

Conflict of interest:

The Authors declare no conflict of interest

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Received: 19.03.2019

Accepted: 07.05.2019