EPONYMOUS AND NO LONGER ANONYMOUS: HARD LIFE AND LONG FAME OF RUSSIAN PHYSICIANS. PROCEEDING II: WHO WAS DOCTOR TARATYNOV?

Leonid P. Churilov

The article is devoted to biographies of Russian physicians of the Silver Age (a period in the history of Russian culture between 1890 and 1917). They made early, significant and internationally recognized contributions to medical science and became eponymous, although social disasters of the twentieth century caused deep impact on their subsequent lives and careers so that their role was occluded from the global medical community. These proceedings are devoted to the biography and academic achievements of Nikolay Ivanovich Taratynov (1887–1919), known for first description of a local form of histiocytosis X (solitary eosinophilic granuloma). It was also he who first correctly hypothesized that Charcot-Leyden crystals belong to products of eosinophilic leucocytes. He also studied the role of the immune system in the regeneration of muscles, but he was killed during Civil War in Russia. The previous proceeding dealt with academic and personal biography of A. K. Zivert, known for first description of Siewert-Kartagener triad, and the subsequent proceeding will cover also biography of their contemporary S. S. Abramov, discoverer of primary idiopathic myocarditis. The contribution of these scientists to Medicine is reviewed in the context of historical epoch against the background of their different individual social choices and the fate of their families. Besides their eponymous descriptions, other medical innovations of these scholars are analyzed. Some previously unpublished materials from their family archives are presented, which witness to the possible existence of an unknown prototype for the main hero of the novel 'Doctor Zhivago' by B. L. Pasternak and for probable other priorities. The factors facilitating rapid development of theoretical and practical Medicine in the imperial Russia of the late 19th and early 20th centuries are discussed. One of them was definitely the fruitful activity of the Imperial Kazan University, which was at the top of its academic development during that period. The conclusion of the author is that in any epoch, even the most cruel and unfavorable one, creative activity is a means toward social immortality. Refs 19. Figs 12.

Keywords: Nikolai Ivanovich Taratynov, Taratynov’s disease, eosinophilic granuloma, histiocytosis X, Charcot–Leyden crystals, Kazan University, History of Medicine, Civil War in Russia, Boris Leonidovich Pastenak, “Doctor Zhivago”.
признанный вклад в медицинскую науку и были увековечены в эпонимах, хотя социальные бедствия XX века глубоко и пагубно воздействовали на их последующую жизнь и профессионально-научную карьеру, поэтому их роль оказалась в дальнейшем скрыта от мирового медицинского сообщества, до сих пор задававшего вопрос: «Кто они?». В данном, втором сообщении анализируются биография и научные достижения патолога Н.И. Таратынова (1887–1919), который первым описал локальную форму гистиоцитоза X (одиночную эозинофильную гранулему) и рано высказал оправдавшуюся впоследствии гипотезу о том, что кристаллы Шарко—Лейдена представляют собой продукты эозинофильных лейкоцитов. Он также изучал роль иммунной системы в регенерации мышц, но исследования прервали Первая мировая и Гражданская войны, в ходе второй он был убит. Первое сообщение было посвящено А.К. Зиверту (1872–1922), первым описывающему триаду Зиверта—Картагенера, в следующем будут освещены биография и достижения патолога С.С. Абрамова (1875–1951), первогооткрывателя первичного идиопатического миокардита. Вклад этих врачей в медицину рассматривается в контексте исторической эпохи, на фоне их различных личностно-социальных выборов и судеб их семей. Кроме эпонимических описаний, проанализированы и другие приоритетные медицинские достижения этих отечественных ученых. Некоторые ранее не публиковавшиеся материалы их семейных архивов представлены впервые, в частности свидетельства возможного существования неизвестного прототипа главного героя романа Б.Л. Пастернака «Доктор Живаго»; а также вероятных иных приоритетов этих врачей в науке. Обсуждаются факторы, способствовавшие быстрому развитию теоретической и практиче ской медицины в имперской России конца XIX — начала XX столетий, в частности плодотворная деятельность Императорского Казанского университета на высоте его расцвета в этот период. Вывод автора в том, что в любую эпоху, даже самую жестокую и неблагоприятную, творчество открывает путь к социальному бессмертию. Библиогр. 19 назв. Ил. 12.

Ключевые слова: Николай Иванович Таратынов, болезнь Таратынова, эозинофильная гранулема, гистиоцитоз X, кристаллы Шарко—Лейдена, история медицины, Казанский университет, Гражданская война в России, Борис Леонидович Пастернак, «Доктор Живаго».

The period between 1890 and 1917 in the history of Russian civilization is called the “Silver Age”. Within the terms of Cultural Studies, it is defined as archeo-modern, when Russian society went into modernity, still keeping many cultural archetypes from the pre-modern Past [1]. It was a time of rapid progress and vanguard innovations not only in domestic Arts, but in literature, and science as well. It brought global fame to many Russian intellectuals, beginning with the Nobel Prize winners in Medicine Ivan Petrovich Pavlov (1849–1936) and Ilya Il’ich Mechnikov (1845–1916) and ending with the leaders of Russian music and forerunners of the literature of the 20th century. The passionate overheating of that epoch resulted in three Russian revolutions. Finally, World War I and Civil War in Russia halted or redirected this rise of Russian thought, crushed the Russian Empire, and gave birth to the Soviet Republic. For many creative intellectuals these events were fatal or turned their energy towards their own survival, so after a very bright and early debut in creative work their footprints were later lost in history, and sometimes the West knows only their surnames, if remembers them at all [2–3]. At the same time, they hold undoubted global priority in many areas, including Medicine. I am writing to fill this gap. One of the most characteristic figures in this long row of the Silver Age medical contributors, is the nowadays almost forgotten Doctor Nikolay Ivanovich Taratynov (1887–1919) [fig. 1].

The WHO classification unites under the term of histiocytosis X (or Langerhans cell histiocytosis) several syndromes. Among them: Abt-Letterer-Siwe disease, Hand-Schüller-Christian disease and solitary eosinophilic granuloma of the bones or Taratynov’s disease [4].
The biographies of a hereditary pediatrician from USA Arthur Frederick Abt (1898–1974), a pathologist from Germany Erich Letterer (1895–1982), a Swedish pediatrician Sture August Siwe (1897–1966), another American pediatrician Alfred Hand Jr.(1868–1949), an Austrian radiologist Artur Schüller (1874–1957), and an American internist Henry Asbury Christian (1876–1951) all are well known and available elsewhere [3]. But until the latest of our efforts there was no information on Dr. Taratynov, neither in international nor in Russian sources on medical eponyms, although he described in 1913 the earliest recognized form of histiocytosis X. Even his full name was obscure, and explanatory dictionaries of medical eponyms (yet those published in Russian speaking countries) just mentioned him as “a domestic physician of the 20th century” [5]. But, recently we came across the possibility of filling this gap. The reason of Taratynov’s long existed oblivion was simple: his life was very short and interrupted suddenly, soon after his discovery, during Civil War between the Reds and the Whites in revolutionary Russia.

Nikolai Ivanovich Taratynov (28 April, 1887–1919) was a Russian pathologist and military physician. He was born in the city of Kazan to the family of Ivan and Sophia Taratynovs.

Ivan Ivanovich Taratynov (fig. 2), whose ancestors came from Chuvashia, was a teacher. He worked in the national education system and at one time served as a school district trustee. The family was typical for Russian intelligentsia of that period and at that region. Even in the photos of them one can see much similar to well known photos of Ulyanov’s family, which lived simultaneously down the Volga, where Vladimir Ilyich Ulyanov-Lenin grew up (he also was a son of a teacher whose ancestors were from Chuvashia). Nikolay graduated in his hometown high school (gymnasium) with a gold medal “To the Successful”, like Vladimir Ulyanov few years earlier at neighboring Simbirsk (fig. 3) and entered the Emperor’s Kazan University (which also did Lev Tolstoy and Vladimir Ulyanov-Lenin...
few years before, although neither graduated). Unlike the orientalist Tolstoy or lawyer Ulyanov, Nikolay Taratynov preferred the Medical Faculty. The University in that period (1863–1917) was at the top of its rapid development, with a constellation of brilliant scientists concentrated there and establishing for the School the highest reputation [6]. Not mentioning other areas, just in the field of Medicine these were: the psychiatrist V. M. Bekhterev, physiologist N. A. Kovalevsky, biochemist A. Ya. Danilevsky, pathophysiologist V. V. Pashutin, ophthalmologist E. V. Adamyuk, anatomist P. F. Lesgaft, surgeons O. A. Rustitsky and L. L. Levshin and other outstanding scientists, which enjoyed European recognition. Young Taratynov had known the happiness of direct apprenticeship with such coryphaei of Medicine as: the microbiologist I. P. Skvortsov, pathophysiologist and immunologist I. G. Savchenko, anatomist V. N. Tonkov, physiologist N. A. Mislavsky, histologist D. A. Timofeev, pharmacologist I. M. Dogel', internists A. M. Kazem-Bek and V. F. Orlovsky, surgeons V. I. Razumovsky and A. V. Vishnevsky, hematologist N. Ya. Goryayev, the last two were both very young themselves in that period. World known neurologist L. O. Darkshevich (together with A. M. Kazem-Bek) supervised student's scientific circle of medical faculty. The Taratynov's generation of Kazan medical students was extremely gifted and bright. During 1906–1912 among students of the medical faculty (and among the members of above mentioned student's scientific society) there were 11 future full or corresponding members of the national Academy of Sciences and/or Academy of Medical Sciences! These are: the physiologists K. M. Bykov (1886–1959) and I. P. Razenkov (1888–1954), the pathophysiologist A. D. Speransky (1888–1961), the microbiologists and
immunologists V.M. Aristovsky (1882–1950) and P.F. Zdrodovsky (1890–1976), parasitologist P.G. Sergiev (1893–1973), phthisiologist V.A. Ravich-Shcherbo (1890–1955), histologist B.I. Lavrentiev (1892–1944), pharmacologist V.M. Karasik (1894–1964), surgeon A.T. Lidsky (1890–1973), the obstetrician and gynecologist M.S. Malinovsky (1880–1976). Moreover, a few other classics of domestic medical science such as the famous pharmacologist S.V. Anitchkov (1892–1981), the discoverer of the cyclic solar dependant metachromasia of bacteria and microbiologist S.T. Velhover (1887–1942) also were Kazan medical students while Taratynov studied and/or taught there [6]. Some of Kazan’s medical alumni of that period entered into the medical “hall of fame” in other countries (like V.A. Kazem-Bek (1892–1931), after whom a street was named at Harbin, China). For sure Doctor N.I. Taratynov had all the chances to join this glorious cohort and become the 12th academic “knight of round table” in the history of 20th century in Kazan. In 1912 he graduated from this prestigious higher school. His middle brother Piotr, also a graduate of Kazan University, became a chemist. They had also a younger brother Andrei (fig. 4).

During N.I. Taratynov’s student years and throughout his subsequent career, his academic supervisor was a remarkable domestic pathologist, one of the pioneers of Immunology in Russia, a graduate of the Emperor’s Military Medical Academy, hereditary physician and medical scientist Fedor Yakovlevich Chistovich (1870–1942) (fig. 5). F.Ya. Chistovich was Chairman of the Anatomic Pathology Department from 1908.

On 12 September 1912 N.I. Taratynov was admitted to Department of Anatomic Pathology at his alma mater as Junior Assistant Professor. The attention to the Pathology of the blood system was traditional for the Department of Anatomic Pathology in Kazan. The previous Head of the Department (and during the revolutionary 1905–1906 also the first publicly elected Rector of the University), Nikolai Matveevich Lyubimov (1852–1906) was an expert in the field of Hematology, the author of one of the first domestic monographs on leukemia [6–7]. Just a few months after the start of work at the Department, the twenty-six year old N.I. Taratynov published in the first issue of «Kazan Medical Journal» (still in existence) an article which was in line with the theme of the Kazan school of pathologists and immortalized his name [8]. A few months after his employment, in 1913, he investigated a surgical case of parietal bone injury complicated in a male patient with a strange granuloma, that looked tubercular. Dr. Taratynov
revealed that the lesion was of mixed eosinophilic and mononuclear character, obviously distinct from tuberculosis. He rejected the diagnosis of bone tuberculosis, as suggested by surgeons, and coined a hypothesis that it is a new class of granulomata related to eosinophils. Also in the same paper he correctly predicted that eosinophils are the source of Charcot-Leyden crystals abundant in such granulomata. As we know now, the main constituent of these crystals is galectin-10, product of eosinophils, interacting with eosinophilic lysophospholipases and their inhibitors [9]. It is necessary to mention that in 1891–93 an American pediatrician Alfred Hand, Jr. (1868–1949) observed a child with a similar cranial granulomata and dyspituitarism and interpreted them as tuberculosis [10], but Taratynov’s detailed microscopic investigation demonstrated a distinct nature of the disease. Taratynov’s academic supervisor, Prof. F. Ya. Chistovich, was no longer a pure anatomic pathologist in the classical sense typical of the 19th century. He devoted many of his studies to Immunology, discovered precipitating antibodies, and spent some time at I. I. Mechnikov’s laboratory working on organ-specific antisera. In the spirit of the time he evolved in the direction of the General Pathology, that is, the emerging field of Pathophysiology [11]. Therefore, he reserved for his disciple an experimental pathological and even immunopathological topic of research: «On resorption of muscles after their damage and the origin of myophages». In 1914, a young scientist successfully defended his doctorate thesis on above mentioned pathophysiologial theme under the guidance of F. Ya. Chistovich. Definitely, it was a work of Mechnikov’s school [12]. Further scientific work was frozen: In the course of the First World War N. I. Taratynov joined the Russian Army, his military medical service was conducted in his native city of Kazan at a local military hospital (fig. 6). After 1916 he became a privat-docent of the same Department (adjunct position). In 1912 Nikolay Ivanovich Taratynov and Antonina Nikolaevna Alekseeva (Taratynova) got married (fig. 7), and in 1917, their only daughter Yekaterina was born to
After the February revolution of 1917, the pathologist obtained a tenured position of regular Associate Professor at his Department. And at that moment the Civil War broke out in Russia. Kazan was in the centre of fierce battles between the Red and White armies. Within a week after the October Revolution of 1917 an armed uprising against the Provisional Government spread over Kazan and brought the city over to the Bolsheviks. But on 9 August 1918 the city was taken back by the White Army [13]. An American writer Alan Furst misattributed the phrase: “You may not be interested in war, but war is interested in you” to Lev Davidovich Trotsky (1879–1940). In fact Trotsky said these words not about “war”, but about “dialectics” [14]. Anyway, he was a Chairman of Revolutionary Military Soviet (Council) of the Russian Federation, and it was under his commandership that the Reds took the city their family.

Fig. 7. Top left: N. I. and A. N. Taratynovs in 1912; bottom left: Church where they got married; right: Taratynovs in 1914

Fig. 8. Artillery of the Red Amy enters Kazan on 10 September, 1918
of Kazan back from the Whites on September 10th, 1918 (fig. 8). Both sides during their capture and re-capture of the city performed bloody terror against their opponents. In 1918 a considerable part of University professors perished (like internist L. L. Fofanov, a victim of spotted typhus), or left the city, escaping the dangers of the vicious war. Some of them retreated with the White Army to Siberia, where many of them later worked at Irkutsk and Tomsk Universities (like A. M. Kazem-Bek), to the south of Russia (like I. G. Savchenko, who moved to Ekaterinodar (present-day Krasnodar)), and even to Harbin, Manchuria. Others emigrated (like V. E. F. Orlovsky, who went to Krakow and became a classic figure in Polish Medicine). But N. I. Taratynov stayed at Kazan University. And finally war became “interested” in Dr. Taratynov: he was drafted into the Red Army as a battle physician. During the battle against the forces of Admiral A. V. Kolchak, who attempted to take the city back in 1919, N. I. Taratynov served as a medical intern, and then as the chief doctor of a floating military hospital sailing on the Volga River along the coast where active fighting was going on (fig. 9). In April, 1919 the Whites approached close to Kazan (just about 140 km) and the discipline among the Red troops weakened. In these days in the hospital, headed by Dr. Taratynov, a patient died. Moved by feeling of vengeance, the brother of one of the casualties, an armed revolutionary sailor, came to Taratynov’s cabin and committed a military crime by shooting a “former tsarist officer”. That’s how the life of one of the most brilliant and promising young Russian pathologists ended! In 1921, the widow of N. I. Taratynov, Antonina, who was a schoolteacher, died of typhus, and their small daughter Yekaterina was orphaned. She was brought up by a grandmother and uncle. Later Yekaterina Nikolaevna Taratynova grew up, graduated from the First Leningrad Medical Institute and in spite of all the hardships and difficulties, and continued along the path
of her prematurely deceased father. Yekaterina Nikolaevna Taratynova (Yaroshevskaya) (1917–2013) was an eminent domestic paediatric pathologist and orthopaedist (fig. 10), and almost 70 years of her career were affiliated with Anatomic Pathology, 56 of them spent at the G.I. Turner Research Institute of Pediatric Orthopedics at Tsarskoye Selo in the suburbs of Saint Petersburg [15]. Nikolay Taratynov’s grandniece, Olga Vyacheslavovna Taratynova still lives there, she is a renowned architect and art researcher and the current director of the famous Museum-Preserve “Tsarskoye Selo” [16]. The younger brother of N. I. Taratynov, Andrew, falsely accused of anti-Soviet agitation, died in the dungeons of the GULAG in 1938 and the middle brother Piotr, who became a stepfather of his daughter Yekaterina, worked for many years as a chemical engineer in the Ural town of Berezniki, involved in the production of mineral fertilizers.

The tragic death of Nikolay Taratynov happened “during the take-off”, on his ascent, was symbolic for the whole of Russian culture of the Silver Age. “No single man makes history. History cannot be seen, just as one cannot see grass growing”, wrote the brightest philosophical poet of the epoch Nobel Prize laureate Boris Leonidovich Pasternak (1890–1960) in the novel “Doctor Zhivago”. He himself passed along the whole of that tragic and heroic path which our fatherland took during the 20th century. And his principle hero, the young doctor Yury Zhivago, involuntarily joined the Red Partisans and eventually perished due to previous sufferings of the revolution and Civil War. But the novel ends optimistically: its final scenes are open, the daughter of Yuri Zhivago, an orphan, was found and saved by his brother general Evgraf Zhivago and entered into a new life [17]. In the 1965 Oscar-winning movie by the director David Lean (1908–1991), the final scene with Evgraf Zhivago (Alec Guinness) can be interpreted as a hymn to the historical correctness of the people

Fig. 11. A screenshot from D. Lean’s “Doctor Zhivago” movie (1965) with Evgraf Zhivago and his niece

Fig. 12. B. L. Pasternak in 1916 at Vsevolod-Vil’va [18]
through the image of a girl (Rita Tushingham) who finds her place in life after and among tragedies, during the great communist construction [fig. 11].

The multiple coincidences in fiction life and the fate of Yuri, his daughter Tonya, his brother Evgraf Zhivago, and real life and fate of Nicholas, his wife Tonya, his daughter and his brother Pior Taratynov are obvious. Even more striking is that in the year 1916 a young beginner in poetry, the 26 year-old Boris Pasternak, recent graduate of University, spent 6 month in Berezniki and in the Vsevolodo-Vilva township nearby (fig. 12), working as a cashier at the same chemical plant where Piotr, brother of Nikolay Taratynov, later worked [18].

History is a process consisting of accidents, but the general course of it has nothing accidental. And it is not by accident that the long oblivion of the Russian pathologist N. I. Taratynov in medical literature has itself finally come to an end [19].

Acknowledgements

The author declares that there is no conflict of interests regarding the publication of this article. All contribution was made by single author. The author is cordially grateful to the grandson of Dr. N. I. Taratynov, the renowned endocrinologist and medical insurance expert Prof. Yury Arnol'dovich Yaroshevsky, to the grand-granddaughter of N. I. Taratynov Elena Arnol'dovna and his grandniece Olga Vyacheslavovna Taratynova for their valuable help in the search for materials about their outstanding ancestor and for permission to publish photos from their family archives.

References

8. Taratynov N. I. O rassasyvanii myshts pri povtvrzhenii ih i o proishozhdenii miofagov (Muskelzellenschläuche): eksperimental'ne issledovanie s 3 tabl., ris. [On the resorption of muscles in their damage and on the origin of the myophages (Waldeyer’s Muskelzellenschläuche): experimental research with 3 tables and figs]. Kazan, Univ. Publisher, 1914. 158 p. (In Russian)


Контактная информация:

Churilov L. P. — M. D., Ph. D., Academician of the International Academy of Sciences (Health and Ecology), Assoc. Prof., Chairman of Pathology Dept.; elpach@mail.ru

Чурилов Леонид П. — кандидат медицинских наук, доцент, действительный член Международной академии наук (Здоровье и экология), заведующий кафедрой патологии; elpach@mail.ru