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The role of Kazan therapists in the development of the direction of Botkin's scientific research and clinical practice in the first half of the twentieth century

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Abstract

The article highlights the formation of scientific therapeutic schools in Kazan using the comparative-historical method from the position of the modern concept of "scientific school". Founded by the first of Botkin's student N.A. Vinogradov, the "affiliate" Botkin's scientific school initiated the creation of therapeutic schools at Kazan University in the first half of the XX century, originating in the second or third generation directly from S.P. Botkin. The activities of prominent Kazan therapists and their role in the formation of scientific schools are considered based on the approach of the social history of medicine — the impact of the social changes in Russia in 1917 and the beginning of the Civil War. Having established a center for the development of the scientific heritage of the great Russian clinician in Kazan, the clinical schools of A.N.Kazem-Bek, S.S.Zimnitsky, M.N.Cheboksarov, and N.K. Goryaev played a huge role in the development of Botkin's direction of domestic internal medicine. **Keywords**: scientific school, Botkin direction of internal medicine, the role of Kazan therapists.

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This publication represents, in a way, a summary of our three articles about Kazan therapists, members of the Russian therapeutic elite [1–3]. Those reports sought to analyze the role of Kazan therapists in the development of the Botkin field of the Russian Clinic for Internal Medicine in the early to the mid-20-century.

The outstanding contribution of Kazan clinicians to medical science is widely represented in scientific, historical, and medical publications, including several monographs [4–6]. As a rule, Kazan Therapeutic School is referred to as a scientific institute of the Botkin direction; various schools are founded by some of the most prominent Kazan therapists.

Here, it is impossible not to respond to these premises, which have acquired the meaning of certain postulates: First, what should be understood as a scientific school? In the history of science, times have passed when there were no special distinctions between the school of a particular person (the number of famous professors with students and dissertations is the same as the number of scientific schools) and the school at the place of the university center (Moscow, Kazan, Kiev, etc.) and its scientific definition (justification). A modern researcher cannot ignore the extensive specialized literature that considers scientific criteria that enable a given clinical school to be identified and compared to other schools [7, 8].

The Botkin Therapeutic School in Kazan appeared at a significant stage in the history of Soviet internal medicine clinics. With amendments to the modern methodology of historical and scientific research, there is no requirement of a unified Botkin school in Kazan. There were different schools of Botkin thought in the period under review at Kazan University. It seems relevant to answer questions on their numbers, special aspects, and significance.

In the 20th century, the most prominent therapists were N.I. Kotovshchikov, N.A. Zasetsky, S.V. Levashov, A.N. Kazem-Bek, V.F. Orlovsky, S.S. Zimnitsky, R.A. Luria, M.N. Cheboksarov, N.K. Goryaev, and A.G. Teregulov, whose names are usually associated with the formation of the leading therapeutic schools in Kazan [9–11]. It is logical to exclude S.P. Botkin's student S.V. Levashov, F.I. Pasternatsky's student V.F. Orlovsky, and

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A.N.Kazem-Bek's student A.G. Teregulov, since the flourishing of scientific creativity from the time when S.V.Levashov left Kazan in 1903. V.F. Orlovsky emigrated to Poland, where he became a mainstay of Polish medicine, and the formation of A.G. Teregulov's own school dates to the second half of the 20th century, that is, it is beyond the scope of the topic under discussion.

There is no doubt that at the beginning of the last century in Kazan, A.N.Kazem-Bek created the brightest scientific cardiological school in Russia, along with the "subsidiary" school of M.V. Yanovsky in St. Petersburg, which developed the views of S.P. Botkin. After his death, the studies of A.N.Kazem-Bek school were not predominantly focused on cardiology, but the cardiovascular subject was inalterably discussed in the works of M.N. Cheboksarov, N.K. Goryaev, and A.G. Teregulov. Another important historical and medical detail should also be noted. An outstanding personality, S.S. Zimnitsky, like A.N. Kazem-Bek, was the "scientific grandson" of S.P. Botkin; however, their "fathers" were different, he was N.A. Vinogradov for A.N. Kazem-Bek, while S.S. Zimnitsky's "father" was the eldest son of the great clinician S.S. Botkin (Military Medical Academy, St. Petersburg).

It is clear that styles of these undoubtedly Botkin schools were different. S.S. Botkin is recognized as one of the founders of the Russian clinic of infectious diseases as an independent scientific and educational discipline, and infectious pathology was one of the favorite subjects of S.S. Zimnitsky scientific work, and in the works of A.N. Kazem-Bek, it was not very noticeable.

Two other Kazan leading lights, R.A. Luria and S.S. Zimnitsky, constantly emphasized the Botkin direction in their scientific works. The first was a student and main employee of the department headed by N.A. Zasetsky. The latter was one of the leading representatives of the largest school of V.A. Manassein (Petersburg) which was the "subsidiary" in relation to S.P. Botkin (however, N.A. Zasetsky himself did not create a noticeable school).

There is a generally accepted opinion about the Botkin school of R.A.Luria, but why are there doubts if everything is so obvious? Neither of them has ever mentioned their teacher-student relationship. The very existence of the Kazan school of R.A.Luria still needs to be substantiated [3]. He started his activities as a talented private practitioner known far beyond the city limits; he wrote his thesis paper in the physiological laboratory under the supervision of N.A.Mislavsky. R.A.Luria was an exceptionally proactive doctor-social activist of social democratic views, while the aristocrat and monarchist N.A. Zasetsky was an ideologue of the "Black Hundred" at Kazan. Again, the analysis of their scientific works reveals a lack of continuity and there is skepticism about the interpretation of their relationship as teacher and student.

In Soviet historical and medical literature, S.S. Zimnitsky and R.A. Luria were sometimes included in the "canon" and called the founders of the Soviet clinic of internal diseases, along with its generally recognized founders D.D. Pletnev and M.P. Konchalovsky (Moscow), G.F. Lang (Leningrad), and N.D. Strazhesko (Kiev). All the leaders of the therapeutic clinic were not highly focused specialists (cardiologists, gastroenterologists and so on). Rather, they were general practitioners, which did not exclude scientific predilections. S.S.Zimnitsky is known primarily as a nephrologist, although he was also a cardiologist, gastroenterologist, and infectious disease specialist; the leading scientific directions in the work of R.A. Luria were gastroenterology and general (methodological) issues of clinical medicine, primarily functional pathology and psychosomatics (like D.D. Pletney, in the spirit of F.Kraus and G. Bergman). The presence of an independent school of S.S.Zimnitsky does not cause doubts (L.I. Vilensky, L.M. Rakhlin, A.M. Predtechensky), but as we have already noted, the question concerning R.A.Luria is undecided. Certainly, he had famous students, but was a scientific school formed in the Kazan period of his biography? It seems that this issue appears worthy of a special scientific study.

After the death of S.S. Zimnitsky (1927) and R.A. Luria's move to Moscow in 1930, the leaders of the Kazan therapists were M.N. Cheboksarov and N.K. Goryaev [12, 13]. The matter is clear in relation to N.K. Goryaev. He was a student of N.I. Kotovshchikov and A.N. Kazem-Bek who were representatives of the clinical school of N.A. Vinogradov, a versatile talented therapist. Together with numerous students, he developed the Botkin clinical and experimental field, but stood out for his scientific passion for the study of the physiology and pathology of blood. In the 1910s, in Russia, in contrast to the German clinic, blood tests were performed in rare cases; there was no developed method for blood testing, and the very significance of this method in clinical practice was implemented by very few scientists [13]. Along with A.N. Kryukov (Moscow–Tashkent– Moscow) and M.I. Arinkin (Leningrad), N.K. Goryaev is considered to be one of the founders of Russian hematology and its clinical and morphological approach. There are no doubts about the Botkin school of N.K. Goryaev.

As for M.N. Cheboksarov, the sources available prevent us from answering satisfactorily the questions that arise. Being almost the same age (Cheboksarov is three years younger than Goryaev), they started together their medical and scientific work as residents at the faculty department of A.N. Kazem-Bek. They, together with their peer L.L. Fofanov (born in 1877), a student of N.A. Zasetsky (department of hospital therapy), in the opinion of the entire faculty of medicine, stood out from the young scientific and pedagogical staff with their talent in research, dedication, and working efficiency. They seemed the most promising candidates for further training in therapeutic departments, as they were disengaged.

A.N. Kazem-Bek, appreciating especially high the "excellent abilities and diligence of Dr. Cheboksarov,"[12] obviously prepared him to be his successor, but in 1915, due to the active underhand dealing by N.A. Zasetsky, the department of the faculty therapeutic clinic was inherited by L.L. Fofanov. However, he soon (1920) died from putrid fever raging in Kazan, and M.N. Cheboksarov took over as head of the faculty clinic. So, the plans of the already deceased N.A. Kazem-Bek were implemented with a tragic tinge.

A year earlier, in 1919, the head of the Department of Medical Diagnostics, Professor M.N. Cheboksarov, was elected dean of the Faculty of Medicine of Kazan University. This was evidenced reliably on his authority both as a doctor and a scientist, and as a promising administrator who knew how to work firmly and intelligently with people. With regard to his election to the department of the faculty therapeutic clinic, he left the post of a dean at the end of 1920, but a year later (September 1921), as well as in 1927, he was again elected a dean of the Faculty of Medicine. In 1922, he was even appointed rector of the university. Thus, the competence and capability of M.N. Cheboksarov as the leader of the Kazan therapists and a prominent representative of the scientific elite of the Soviet Tatarstan cannot be questioned [14].

However, at the same time, there is no evidence of his participation in the scientific and public life of the therapeutic elite in the country. Thus, the interests of Kazan at the All-Russian Congresses of Therapists were represented by V.F. Orlovsky and N.K. Goryaev, starting from the 1st Congress, they made reports and were elected to the council of the society; M.N. Cheboksarov was not mentioned there (probably, he was not present) [15]. If it is a position, what can such a position imply? We present an attempt to answer this question using an approach characteristic of the social history of medicine.

Considering the social and sociopolitical composition and personal characteristics of Kazan representatives of the therapeutic elite of the first third of the 20th century, three groups of leaders can be distinguished. The first group includes N.A. Zasetsky, A.N. Kazem-Bek, and V.F. Orlovsky. By origin, upbringing, and political views, they, like V.P. Obraztsov in Kiev or V.N. Sirotinin in Petrograd, could not accept the new authority, and were fundamentally different in temperament and personality from the convinced conformist, the Moscow leader V.D. Shervinsky. They were not ready (did not want to be ready) to continue productive creative cooperation for the benefit of Soviet Russia, and therefore in September 1918, A.N. Kazem-Bek and V.F. Orlovsky left with the White Czechs from Kazan.

The antithesis of this position seems to be the sincere sympathy for the slogans of the new workers-and-peasants Bolshevist government, hopes for a renewal of the dilapidated foundations of life in the former Russia and the most energetic involvement in its construction, as demonstrated by S.S. Zimnitsky, R.A. Luria, and (with less expression) N. K. Goryaev. Formally, M.N. Cheboksarov participated actively in this construction, but with a certain care. His position seems to be close to F.G. Yanovsky's life and feelings in Kiev, as he accepted the new authority with great hesitation, but also with hopes. However, he experienced severe disappointment in life; he worked till the end, indefatigably, but asked God for death [16].

Certainly, unlike him, M.N. Cheboksarov was not a religious fanatic, but the moral atmosphere was close. Rejection of many aspects of the new life and wise caution, (typical for E.E. Fromgold among the Moscow leaders of therapy) could prompt M.N. Cheboksarov the expediency of a "peripheral" position away from temptations, as well as from fierce competition and dangers inherent in the life of the capital's elite. It is hardly by chance that N.K. Goryaev, but not M.N. Cheboksarov, was declared the Hero of Labor in the USSR (1933). Anyway, one of the leaders of the Kazan elite in the field of science and higher education, an excellent therapist and an outstanding experimenter-endocrinologist M.N. Cheboksarov was not declared as one of the leaders of the Soviet therapeutic elite.

Thus, the analysis of our material reveals that in the first third of the 20th century in Kazan, several (five or six, depending on the interpretation of the genesis of R.A. Luria's school; rather, five) therapeutic schools originated directly from S.P. Botkin (in the second or third generation, that is, representatives of these schools were his scientific grandchildren and great-grandchildren) developed his ideas. Consequently, it was in Kazan, where the elder Botkin disciple, N.A. Vinogradov, founded a subsidiary Botkin school, the second center, along with that in the capital, dedicated to the scientific heritage of the great Russian clinician. There was nothing of the kind in Moscow; and in Kiev. Only the schools of N.D. Strazhesko and M.M. Gubergtitz could compete with the Kazan schools. The Scientific Therapeutic Center in Kazan played an enormous role in the fact that the Russian clinic of internal diseases developed along with the natural-scientific European (Botkin) path.

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