

Articoli/Articles

## MOSCOW HOSPITAL SCHOOL

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### SUMMARY

*Among the innovations introduced during the dynamic reign of Peter the Great in his attempt to bring Russia in line with countries in Western Europe was the foundation of the Moscow Hospital School in 1707. He entrusted the direction of the school to the Dutch physician and surgeon, Nicolas Bidloo, who dedicated himself to his students and to the organisation of the school and was an excellent teacher as well as an expert in anatomy. The large number of surgical instruments listed in a catalogue drawn up when the hospital was damaged by fire in 1738 testify to the quantity and variety of surgical procedures carried out at the hospital. Equal importance was given in the courses to theory and practice, and surgery was considered on a par with medicine at a time when surgeons in most European countries were considered to be an inferior category. The high standards of the school soon won it great renown and later medical schools in Russia were modelled on this first medical institution of higher education in the country.*

The end of the XVII and the beginning of the XVIII century turned out to be a highly significant time in the history of Russia. The reforms undertaken by the talented and energetic Peter the Great, a remarkable statesman and military leader, coupled with the efforts of the whole nation made it possible to overcome the age-old backwardness of the Russian state.

Economic progress as well as political and cultural transformations prompted accelerated scientific developments.

Parole chiave/Key words: Moscow Hospital School-Bidloo - History

The school for mathematical and navigation sciences, Artillery school, Engineering school, Naval Academy, mining industry artisan school and many others made their appearance in the XVIII century. The Petersburg Academy and Moscow University were founded in 1725 and 1755 respectively. The Russian medical-surgical schools set up for training physicians in hospital schools, were among the first in the world.

Such schools were founded only under the sponsorship and on the premises of big medical treatment hospitals. The medical education these schools provided differed most radically both from the teaching administered at the Apothecary department, initiated in 1654, and the education given by medical faculties of the West European Universities. In these Universities, physicians received mostly theoretical education in contradistinction to West European Surgeons, whose education followed the pattern of *apprenticeship*, due to which they were regarded as medical men of the *Second Sort*. At the same time at the beginning of the XVIII century it became more and more clear, that physicians required good training not only in the field of internal medicine, but also in the field of surgery.

So, Russia, where there had never existed any antagonism between physicians and surgeons so characteristic of Western Europe, started training physicians (*Lecars*), who were equally well versed both in surgery and internal medicine.

On the 25 of May 1706 an *UKAZE* was issued by Peter the Great, to the effect that a *Moscow hospital* be built to treat those who are ill, in a respectable place, behind the Yausa river, opposite the German Settlement. In the *UKASE* it was underlined that doctor Nicolas Bidloo should be placed in charge of the hospital; two aids were assigned to him, Andrey Repkin and someone to be appointed later; the medical staff was to include 50 persons, Russians as well as foreigners; the financing of the construction work, as well as staff salaries, purchasing of the equipment and drugs and all the other expenses were to be covered from the revenues coming from monasteries<sup>1</sup>.

The hospital was opened on the 21 of November, 1707; when the first pupils of the hospital school also started their studies. Since the teaching was carried out in Latin, the prevailing student contingent consisted of the graduates of the Moscow Slavonic-Greek-Latin Academy and of the Theological Seminary. They were young people of low origin, mostly lower clergy, artisan Kossack and sons of soldier families.

Accustomed to achieving everything through their own efforts, they took learning seriously, and as a rule studied willingly and with application.

Naturally not all the students who entered the Moscow hospital school completed the whole course. Thus, doctor Bidloo wrote to Peter the Great in 1717: *Out of the 50 students that I have engaged in different years to make surgeons out of them, 33 remained; 6 died, 8 ran away, 2 in obedience to Ukase were transferred to school, one, owing to his intemperance, was sent to the army as a soldier*<sup>2</sup>.

According to their age, the duration of the studies and progress in learning, all students were divided into three categories; all of them were provided by the state with board and lodging in hospitals in single rooms, were given uniforms and received a salary. At the beginning there was no definite time limit for the training course at Moscow Hospital School. It varied from 5 to 10 years depending on the progress shown. The program of studies provided for the substantial knowledge of the subjects which formed at the time the basis of the education for physicians and surgeons; anatomy, materia medica, pharmacognosia including, pharmacology and pharmaceuticals, internal diseases, as well as surgery with dismurgy.

Anatomy was taught by Bidloo himself. Born in Amsterdam, he graduated from Leydon-Botave Academy, presented his thesis in 1697 and came to Russia in 1703. Russia became his second homeland: here he lived for over 30 years and died in 1735.

While teaching anatomy doctor Bidloo used a concise course of anatomy which he compiled himself in 1695-1696, as well as the Atlas of Anatomy compiled by his uncle, Gotfrid Bidloo. It

was published in 1685 in two languages, Dutch and Latin. For studying anatomy corpses were widely used: in Moscow an order had been issued, according to which corpses of the people belonging to the lowest Social groups which had been picked up in the streets had to be brought to the anatomical theater or to the hospital. Osteology was studied on skeletons and separate bones. Some elements of histology were also taught.

In Moscow Hospital School special attention was focused on anatomical studies. The knowledge of this subject was obligatory for surgeons. *Anatomy, which is the knowledge of the building of the whole human body, both external and internal, belongs to surgery* — so doctor Bidloo taught his students<sup>3</sup>.

This anatomical (and later — anatomo — physiological) approach, which prevailed not only in Moscow, but in other hospital schools as well, became that feature which was characteristic of Russian surgery in the XVIII-XIX centuries. *Materia medica*, also called *apothecary Science* was taught at the hospital school by the apothecaries of the hospital, Christian Eychler, and later Ivann Maak. A plantation of medicinal plants was created on the hospital ground; in summer and autumn the students together with the apothecary went out of town and collected medicinal herbs to replenish the stocks of the hospital apothecary.

Internal diseases (or more simply: medicine) consisted of specific pathology and therapy. The study of these subjects had been initiated by Doctor Bidloo.

Surgery was taught at the hospital by Bidloo himself; while Bidloo's help *lekar* Repken, and junior *lekar* Fyodor Bogdanov were responsible for disurgery.

Thus the teaching program of the Moscow hospital school for the future physicians was very substantial, and not at all inferior, indeed in many points superior to the programs of the medical faculties of the West European universities of that period.

The contents of the anatomy and surgery courses, presented at the Moscow hospital school can be judged from Nicolas Bidloo's fundamental work *Manual for the study of surgery in the anatomical theater*, written in Latin in 1710. Bidloo's manuscript was discovered in 1963 by the Soviet historian of medicine N.A. Oborin in the fundamental library of the Military Medical Academy in 1963. It was translated into Russian and published in Moscow in 1979. Among the distinguishing features of this work are not only its high scientific level, but also its full conformity to the requirements of the manual: strictly systematic and well thought out presentation, stressing the most important points, as well as willingness to give students the opportunity to study on their own.

*In these lectures something has been omitted and left unsaid — doctor Bidloo told his pupils — but it will come to you with experience, practice and thought<sup>4</sup>.*

The studies provided an opportunity for experience, practice and thought. Surgical operation techniques were taught at the hospital school on patients in the hospital, and in the anatomical theatre on corpses. The hospital operations were usually conducted by Doctor Bidloo, the operations on corpses by *lekar* Repkin.

In the anatomical theatre the students were shown even those operations which it proved impossible to carry out on patients (for example due to the absence of the suitable patients in the hospital), but which were on the teaching program. Moreover, in the anatomical theatre, training in the use of the material presented took place. Desmurgia was taught using both patients and dummies.

As an additional proof of the high scientific level of the surgical teaching at the general hospital, as well as of the wide range of operations carried out, there is the large amount of surgical instruments in this hospital. As reported by Christovich, there still exist catalogues of these instruments which were compiled in 1738, in connection with the damage they suffered as a consequence of the fire that had occurred in the hospital. The

instruments were placed in different boxes according to their usage: some were meant for special, some for common operations; thus in the first box among 72 instruments there were instruments for carrying out trapanation, as well as operations on the eyes, ears and in the mouth, for paracentesis operation and many others. 15 instruments from the second box were to be used for the operations on the rectum, 25 instruments from the third box for hernia operations, 25 instruments from the fourth were made use of during a wide range of operations. Many of these instruments had been mentioned by Bidloo in his manuscript. He taught his students how to use them.

As a teacher, Bidloo resolutely opposed cramming as a method of learning theoretical and especially clinical disciplines, for example, like learning by rote terms which were not clear to the students. *Towards his pupils Bidloo was not a pedant, he did not dominate them, did not abuse his authority as a teacher — wrote Ya. A. Chistowich — At one and the same time, he was their superior, fully controlling them, their teacher and their mentor; he taught them everything which was useful for them to know, and at the same time let them study on their own, following his example and making use of his recommendations and advice*<sup>5</sup>.

Clinical subjects were taught at patients' bedside, parallel to studying theoretical disciplines. From the very beginning the students worked in the clinical departments of the hospital: they took care of treating patients, kept the records, attended the rounds of the head physicians, were on duty at night and during holidays.

The schedule of the studies and training was made in such a way as to ensure a more or less balanced distribution of the work required. Early in the morning the students visited the patients and examined them; then they took part in the rounds which doctor Bidloo made, watched the operations, helped with bandaging the patients, took care of the patients whose state was serious. After that they attended lectures, took notes of the material presented there, or rather put down what was dictated

to them, since at the time there were only few manuals. After dinner the students learned their lessons. There was not enough paper, which was very expensive at the time; pupils wrote with lead stabs, or with quills.

But neither these, nor many other difficulties (even the fires which broke out in 1721 and 1737 and devastated the hospital) prevented the work being carried out in the hospital school. The first graduates left the school in 1712. Among them were Stephan Blazheny (Nevsky), Egor Zhukov, Uvan Belyae V. and Ivan Orloff. Other graduations took place in 1713, 1714, 1719, 1721, 1723, 1730 and further on. Strict examinations invariably confirmed the medical competence of the graduates and good grounds for conferring on them the status of a physician (*lekar*).

At the same time it should be pointed out that the first graduates of the hospital school were received with coldness if not with hostility by their brother-physicians. In the first part of the XVIII century many foreign physicians practised in Russia; among them there were those who came to the country, motivated not by the sincere desire to be helpful, but by mercenary considerations. Jealously guarding their privileges, such physicians tried to prevent their Russian colleagues from joining the corporations or if admitting them to the corporation at all, tried to reserve for them a far inferior status<sup>6</sup>.

Thus, two pupils of doctor Bidloo, who graduated from the hospital school in 1712, Stephan Blazheny (Nevsky) and Ivan Belyayer, were subjected to an additional examination by the commission, consisting of four foreign physicians.

Being flagrantly partial, the commission made the students flunk their exams; here is a tale-tell episode, illustrative of this attitude: one of the Board members *cast* a black ball, while absent from the examination<sup>7</sup>.

At the same time Doctor Bidloo's intervention produced its effect: both young physicians who had been rejected were accepted and served in the Baltic navy. The navy later engaged also many other graduates of Moscow Hospital School.

Peter the First played a prominent part in defending the young Russian physicians against the discrimination of the foreign specialists, insisting on their equality (the identity of terms of their service)<sup>8</sup>.

Wishing to encourage, and possibly to accelerate the formation of the physicians at the Moscow Hospital School, Peter the Great gave orders to pay Doctor Bidloo 100 rubles for each graduate physician and 50 rubles for each graduate *junior* physician. Never the less the czar's premium did not make Doctor Bidloo, highly moral and incorruptible man that he was, renounce his principles and accelerate graduation, turning out inadequately qualified specialists. The term of studies remained unchanged and lasted 5 to 10 years. Even some steps in the opposite direction were taken: at the hospital school, beside the graduation examinations, *repetitions* were introduced, which served for checking a student qualified for transferring to the next, more advanced study level. Later, the junior students, who studied the supplementary subjects were called pupils, whereas senior students, who were learning practical medicine and surgery, were called *junior* physicians. When they had passed the general graduation examination, the grade *physician* was conferred on them.

The medical achievements of the graduates of the Moscow hospital school justly contributed to its high renown. When later new hospital schools were set up in Russia (in Petersburg, in Kronstadt, in Barnaul and Elisabetgrad), and the *General Statute on Hospitals* was adopted (1735), then the formation of the new generations of Russian physicians drew heavily on the experience of the Moscow Hospital School — the first medical institution of higher education in our country.

## BIBLIOGRAPHY

- <sup>1</sup> ALEKSEEV A.N., *Istoriya Moscovskogo voennogo gospitalya*, Moscow, 1907, p. 74.
- <sup>2</sup> Ibid, p. 84.
- <sup>3</sup> BIDLOO N. L., *Nastavlenie dlya isutchayushchich chirurgiyu v anatomicheskoy teatre*, Moscow 1979, p. 9.
- <sup>4</sup> Ibid, p. 278.
- <sup>5</sup> CHISTOVICH YA. A., *Istoriya pervich medizinskih shkol in Rossiya*, Saint Petersburg, 1883, p. 64.
- <sup>6</sup> ALELECOV A.N., *Istoriya Moscovskogo voennogo gospitalya*, Moscow 1907, p. 104.
- <sup>7</sup> SLOTNICOV M.F., *Morskoy Vratch*, 1916, May, p. 254.
- <sup>8</sup> ALELEKOV A.N., *Istoriya Moscovskogo voennogo gospitalya*, Moscow, 1907, p. 107-108.

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