THE IMPERIAL SCHOOL OF MEDICINE OF GALATASARAY AS AN EXAMPLE OF MEDICAL MODERNISATION IN TURKEY (1839-1848)

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INTRODUCTION

Nineteenth century has been a period of reformation for the Ottoman Society as a whole; the determined efforts for modernisation beginning in the first decades had its reflections on the field of education, too. Modern institutions of higher medical education started with the establishment of the School of Medicine and Surgery (Tibhane-i Amire ve Cerrahhane-i Mamure) in 1827 (3),(2). But soon after, that School failed to cover the needs of contemporary medicine and brought about demands for an educational reform and for a more functional education system that necessitated a larger building (1). An old palace school in Galatasaray at Pera (Istanbul) was modified and rebuilt to that aim in 1838, and the institution began to serve as the Imperial School of Medicine (Mekteb-i Tibbiye-i Adliye-i Şahane) in 1839 (6)(7).

Regarding to its location, this institution was mentioned as "Ecole Impérial de Médecine de Galata-Serai" or "Medical College of Galata-Serai" or "Galatasaray Medical School" in foreign sources(4). The Imperial School of Medicine activated there as a modern medical institution for ten years (5).

"ECOLE DE MéDECINE DE GALATA-SERAI"

When described physically, after the majestic front façade, there were school parts as well as a botanical garden and an arboretum on both sides of the courtyard. Imperial apartment, student dormitory, auditoriums, rooms for practical training, dining-hall, lodgement house for academical staff, and a bath (hammam) took place in the inner court (9).

The botanical garden, comprising medicinal plants of Istanbul flora, was directed by Dr. Salih Effendi, a graduate of the School. There were a large library and museums of natural history, zoology, mineralogy, anatomy providing materials for lectures. The library, museums and laboratories were described to be equipped with modern pieces, instruments and devices that could be found at a contemporary medical school in the West at that time. The collections were enriched by scientific excursions into the several regions of the Empire and also by donations. The interns students also took part in those journeys led by scientists. Egyptian Khidiv, Mehemed Ali Pasha, the founder of Cairo Medical School, presented a large collection to the zoology museum in 1843 on the occasion of its inauguration. Profs Hyrtl and Meyer from Graz sent a large set of anatomical preparations to the School (9).

The foreign visitors praised the effective order of school buildings specifically designed for the needs of professors and students, as well. They have expressed admiration for the modern atmosphere of the School gathering together students from all religious communities of the Ottoman Empire. After consent of the community, Jewish students were also registered to School for the first time in 1846 (9).

The annual activities of this School were regularly presented to the Sultan in a report during the ceremonial final examinations, organised in grandiose manner at the Sultan's presence by the end of each academical year (10). Together with the Sultan, high ranking officials, delegates of foreign missions took part in the graduation ceremony where students were examined from all
branches of medicine and surgery. Finally candidates' (including pharmacists and midwives) were given diplomas, by taking professional oath on the sacred books of their own, and investiture of doctoral robes followed suit.

EDUCATION

Teaching language of the School was French. The graduation and dissertation examinations were carried out also in French. Special care was taken at the preparatory classes to make the students able to follow lectures, acquire basic knowledge on history, geography, sciences, French, Turkish and Arabic languages. Later on a special class for health officers of minor surgery was produced in 1846 where instruction was in Turkish.

The education period was 3 years at the preparatory, 4 years at medical classes at first. It was prolonged to nine, and then to ten years. Lectures of all branches were included in the curriculum and the teaching staff practiced and instructed at the clinics where patients were treated basing on the latest medical knowledge. The staff was joined by professors graduated from the Western medical schools. A young Austrian physician Dr. Karl Ambroise Bernard (1808-1844) was employed, by an Imperial Decree, for reorganising educational system. He served as the chief of professorial staff, directed the internal and surgical departments at the School. Dr. Bernard made the School gain a novel identity. He published four books when he taught at Galatasaray; on botanics, on percussion and auscultation, on Bursa spa, and also a military codex. Upon his unexpected death, Dr. Sigmund Spitzer (1813-1895), from Austria, was appointed in his place. Prof. Constantin Carchédoery, an Ottoman citizen of Greek origin, became world famous as an able surgeon and clinician of the School by his masterly operations.

After getting the legal permission in 1841 for dissection on human cadavers, the students were able to consolidate clinical information with pathological findings. Actually the students were trained at bedside of patients at clinics. The interns were allowed to operate together with their professors (8). The Galatasaray Medical School scored an impressively low mortality. Many operations were carried out successfully such as extirpation of osteo-sarcoms, tonsils, fistulas, lipomas, polyps, regenerative malformations; lithotomy, lithotripsy, tenotomy, herniotomy, rhinoplasty; amputations by physicians; and several operations on ear, larynx, pharynx, eye, lip, abdomen by interns (9).

Within the Medical School, there was a Class of Pharmacy for two years. Pharmacy practice was stipulated on the graduation of that School from 1846 on. A course of midwifery for female practitioners was opened for the first time in 1843 inside the Medical School. The candidates were instructed theoretically in Turkish by a professor on the models and trained by the midwives. Despite the fact that it was a military institution, the Imperial Medical School played a decisive role on public health activities such as fight against contagious diseases, and vaccination. At the Vaccination Office, smallpox serum was produced and delivered gratis for people from all around the country and thousands of Muslim and non-Muslim children were vaccinated against smallpox every year. For example the number of vaccinated children (Turks, Armenians, Greeks, Jews, foreigners) in 1843 was 2295. The number reached to 12,000 three years later. In order to encourage people, vaccination was carried out as festivals led by the Sultan himself on palatial journeys into the provinces accompanied by the professors and students from the School. Polyclinic rendered free medical service, by turns of the teaching staff. For instance 8000 outpatients and 823 inpatients were cured in 1843.

The four graduates of Galatasaray, one Muslim (Dr. Arif Musa), one Armenian (Dr. Stephan Ilias), one Greek (Nicolas Nikifore), one Jewish (Dr. Gregoire Yanovitch) were taken to the final graduation examinations at the Vienna School of Medicine in February 1848. Four young doctors passed the exams successfully, proving the high level the School had attained since its establishment (9).
The first experimentation and application of chloroform owe a great deal to this contemporary and modern scientific atmosphere. Chloroform as a chemical and anesthetic substance, started to be taught in the curriculum, experimented on animals and humans, and administered in surgical operations at Galatasaray Medical School in 1848. That was a year after its first surgical use in Great Britain by Dr. Simpson (10).

The flames of the Great Pera Fire devoured the timber School buildings on the night of October 11th, 1848. This was not only the destroyal of a most appreciated collegiate building, but also the end of a bright period of medical education in the Ottoman Empire which could not be excelled for decades. But the education that had started in 1827, continued without any interruptions until present. And this institution is now called the Istanbul Medical Faculty.

CONCLUSION

But the School was not bereft of critiques. First of all it lacked a maternity and female clinic, which was expressed over and over again in the reports. A maternity ward could be opened only by the end of the 19th century. Secondly the number of graduates of Galatasaray Medical School was not sufficient to cover physician need of the Empire. This was related to the hard education in French, which induced the adoption of Turkish as teaching language in 1870.

The factual success of Galatasaray Medical School was based on the imperial support believed in western type modernisation, together with a clever governmental administration in cooperation with a reformative training system that caused revolutionary steps in medical education. The School has demonstrated a rising graphics of success and been a centre of attraction all through the Empire that was noticed by the European countries.

3. Fünun, 1247 (1832), Takvim-i Vekayi. İstanbul: Turkey, 11, 1-2.
SOCIETAS INTERNATIONALIS

HISTORIAE MEDICINAE

40th International Congress on the History of Medicine

August 26-30, 2006
Budapest - Hungary

Proceedings II.