

Turkey and its international relations in the History of Medicine

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Summary

My discussions with ISHM members have disclosed considerable interest in the history of the relations that Turkey and its medicine have had with other countries. Dr Lellouch, the secretary of ISHM, originally suggested that I address the subject of Turkish-French relations by means of an essay in Vesalius. This led me to consider a wider ranging paper on Ottoman-European relations. For completeness, I have briefly covered the Turkish peoples' relations with the Eastern, as well as the Western World. The overall aim of this article is to act as a stimulus for further discussion on the international relations in health sciences between Turks and other peoples.

Résumé

Dans les discussions que j'ai eues avec les membres de la SIHM, j'ai pu déceler un intérêt considérable pour les relations que la Turquie et sa médecine ont eues avec les autres pays dans le passé. Le Dr Lellouch, secrétaire général de la SIHM, m'avait d'abord suggéré d'envoyer à Vesalius un article sur les relations Turquie-France. Ce qui m'a amenée à rédiger ce papier sur les relations entre Ottomans et Européens. Pour que celui-ci soit complet, j'ai brièvement retracé les relations du peuple Turc avec les pays de l'Est et de l'Ouest. Le but principal de cet article est de provoquer de futures discussions sur les relations internationales entre les Turcs et les autres peuples, dans le domaine des sciences médicales.

The best known Turkish States in history are the Seljuk and the Ottoman States founded respectively in 1071 and 1299, in Anatolia. The Anatolian Seljuk ruler Al.eddin Keyk°bad invited to his domain physicians from Turkistan, Khw,rezm, Khorasan and Azerbaijan, areas densely populated by Turkish peoples. There was also an exchange of medical cultures between Turks and the other peoples who had settled in Anatolia before the arrival of Turks, both before and after their conversion to Islam.

This subject is expected to be discussed during the Istanbul Congress by Professor Ali Haydar Bayat, a member of ISHM, in a lecture dealing with the influence of the former Anatolian medical cultures on Turkish medicine. He will present interesting information on the origins of the medical symbolic engravings decorating the Seljuk hospitals, some of the most splendid of which it is hoped will be visited during the Cappadocian post-Congress tour.

As the main interaction and relations of the Seljuks and the Ottomans in Anatolia were between the Turks and the Byzantians, Byzantine sources which contain information about medical

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history are also expected to be introduced. Professor Alan Touwaide is organizing a panel on «Medicine and inter-cultural exchanges: Byzantium, the Arabic World, the Ottoman Empire».

Until the 17th century Ottoman medicine was characteristically Islamic and Islamic medical works were usually compiled and studied in Arabic; while some were translated. Several were written in Turkish. Arabic medical literature was highly influential for a thousand years, beginning from the 9th century. Even the European medical terms translated from Nysten's medical dictionary in the second half of the 19th century were derived mainly from Arabic words in the Ottoman medical dictionary *Lugat-i Tibbiye* (1873), and formed the basis of Arabic medical terms used today. Turkish intellectuals favoured Arabic and Persian as languages of science and literature and, for centuries, shared their medical literature, culture, and institutions with the Near East Muslim countries.

There were such close relations between the Turkish, Arabic and Persian cultures of the Selcuk and Ottoman periods that it is sometimes hard to differentiate one from the other, for the concept «Turk» was identified with Islam. From the early Ottoman period to the time of Westernisation many physicians employed in Anatolia - some born in Turkey, others in different Moslem societies - had been educated in famous Islamic centres, such as Cairo, Damascus, Bagdad, Tabriz, Meraga, Shirwan, Semerkand and Bukhara. For example during the 15th and 16th centuries Ottoman physicians, such as Hacı Pasa were educated in Egypt and *Kutbeddin Ahmed, Lari and Ah? Celebi* in Iran.

Though the Arab peoples in the Ottoman domain formed important groups, we do not have satisfactory information about Arab physicians and their practice and employment during this era. Neither do we have enough knowledge about the health services, for instance hospitals

and institutions founded by the Ottomans in the Arabic countries, such as those founded in Medina. The role of Turkish rulers and physicians and their contribution to Islamic medicine and building of hospitals, the activities of other Muslim peoples and their contributions during the Seljuk and Ottoman periods are fields worth studying.

Significant Ottoman-European relationships with respect to medical history began with the immigration of Jews from France, Germany, Italy and especially from Spain to Istanbul, to live under the patronage of the Ottoman Sultans from the end of the 14th to the 17th centuries. Amongst them were famous Jewish physicians such as *Musa bin Hamon*. At the beginning of the 17th century they came to be a large enough group in the Palace to form a Jewish physician community. There were many Jewish physician pashas (general officers), for example *Isaac Molho* and *Elias Kohen*, in the Ottoman military service. The names of many Ottoman Jewish physicians are recorded by *Avram Galante*. The practice and function of the Ottoman physicians of the Jewish community is another area that has not been studied enough so far.

After the 17th century Ottoman medical science began to turn to the West, although until the 19th century it may still be regarded mainly as the continuation of Islamic medicine. In the 19th century there were closer medical relations with Italy, Austria and France. First Italian and then French were the languages allowing Ottoman access to European medicine. From the second quarter of the 19th century, increasing numbers of physicians from European countries were invited to teach medicine or to be employed in the palace or in royal medical institutions. Relations with Britain in the first half of the 19th century increased after the Crimean War. Relations with the Americans speeded up in the last quarter of the 19th century. In addition, during the 19th and the beginning of the 20th centuries the Ottoman State encouraged medical activities in other Islamic countries, for example, founding

a medical school in Damascus in 1903, where medicine was and still is taught in Arabic.

Some of the earliest medical terms introduced from Europe into the Ottoman medical literature were Italian. The pharmacist or *ʾspenc/ʾar* was derived from Italian *speziare*. The early translations from European medical literature, for example Jenner's monograph of 1798 (*An Inquiry into the Causes and Effects of the Variolae Vaccinae*), were usually through Italian sources. From the 16th century onwards, Italian physicians who had graduated from the Paduan Medical School began to come and practice medicine in Istanbul. Thus, Italy came to be a favoured country for medical education during the early period of Ottoman westernisation. The subject of Ottoman graduates from the Italian Medical Schools and those who specialized there is an area waiting to be studied.

For instance, the Ottoman Greek physicians *Caratheodorys* and the Armenian *S/nap'ans* were graduates of the Pisa Medical School during the first half of the 19th century. The *Hopital du Gouvernement de Sardaigne*, later called *Regio Ospedale Italiano*, was founded in the first quarter of the 19th century for sick Italian sailors in Istanbul and several Italian physicians, such as Agostino Salvatori and his son Giuseppe were employed here. Also at the beginning of the 19th century, Italian physicians such as Eusebio Valli and Antonio Pezzoni were employed in the minorities' hospitals and were given extensive privileges by the Sultan.

Delia Suda Faik Pasha, an Italian and graduate of the Paris School of Pharmacy, was the head of the Ottoman Military Central Pharmacy. He was honoured with the Legion d'Honneur, as an Ottoman representative, for his drugs exhibited in the Paris exhibition of 1867. Amongst many Italian doctors who practised during the Ottoman period, pre-eminent was Giovanni Batte Violi. He established a special vaccination institution "*Etablissement vaccino-*

gene" at Istanbul, in 1880, as well as the St George's International Hospital for Children in 1895 and the St George's Sanitarium for Children at Antigonin in 1902. These institutions were supported by the sisters of St Vincent de Paul, as well as by the Italian Society in Istanbul. There were many other Italians who worked in the Ottoman Palace, the Quarantine Service and the hospitals.

The influence of Austrian-German medical science and practice began through translations from works of Paracelsus, Adrian von Mynsicht, Michael Ettmüller, Oswald Croll, Daniel Sennert and Baron von Stoerck of the Vienna School, in the 17th and 18th centuries. Direct relations started with the arrival of Austrian physicians Charles Bernard, Jacques Neuner and the pharmacist Antoine Hoffmann to Istanbul. They were invited by Sultan Mahmud II to be employed in the Palace and the Quarantine office in 1838. Charles Bernard played an important role in the modernization of the Ottoman medical education. He died young and was buried in Istanbul.

Starting from this period (1840), several Austrian health institutions, such as the St. George hospitals, were founded with the support of the Austrian State and the sisters of St. Vincent de Paul, who ran the institutions. During the years 1870-71, eighty-five Austrian and Hungarian doctors were appointed to work in military service and hospitals. During epidemics Germans were consulted for aid, for example, during the syphilis epidemic in 1889 Ernst von Dühring; and during the cholera epidemic in 1894 Rudolf Emmerich were invited.

The next main influence was through the Military Clinical Hospital, *Gulhane Tatbikat Mektebi*. From 1898 to 1914, the German physicians Robert Rieder and Franz Deycke, and following them, Julius Wieting were to play a great role in the development of clinical education. During this period many German nuns came to work here. As a result of this contact, technology

for drug production was introduced from Germany and relations with the *Institut für Infektionskrankheiten* in Berlin contributed to the development of Ottoman microbiology. In 1908 Ottoman physicians were sent to Germany for specialization. Amongst them, Hasan Reshad Sigindim was sent to Hamburg, where he worked with Shilling and discovered monocytic leukemia (1913). In 1906, August Bier and Ernst von Bergmann, and in 1907 Emil von Behring, were invited to treat Sultan Abdulhamid II.

Beginning in 1933, many Jewish doctors and scientists migrating from Germany were invited to Turkey and employed as instructors in the Istanbul University Medical School. Some of them, namely, Friedrich Dessauer, Erich Frank and Rudolf Nissen, were quite well known. Some settled permanently in Turkey, others worked temporarily until 1956. This occasion was a part of the University Reform of Atatürk, the founder of the Republic of Turkey. German physicians were invited again in 1938 to treat Atatürk.

The most important of the relationships that Turkey had with other countries in the 19th century was with the French. This was largely associated with the use of French in the teaching of medicine which started in 1839 and continued until 1867. This French influence can also be observed in other provinces of the Ottoman State, such as Egypt. For example, Antoine Clot was employed as the French director of the School of Medicine during the time of Mohammed Ali Pasha, the Ottoman ruler of Egypt from 1805-1845. The French influence on Ottoman medicine had started to slow down in the early 20th century, but it did not end until the 1940s.

French physicians were regularly employed as faculty members in the Imperial Medical School in Istanbul, an example being Dr Antoine Fauvel, who taught internal medicine during the 1860s. French physicians came with the French military troops to the Gulhane Hospital in 1919 and Gabriel Delamarre, De la Combe and Aime

Mouchet acted as lecturers in medical courses. Families also preferred to send their children to France for medical education for many years. Muslim, Armenian, Greek, Jewish Ottoman male/female physicians, pharmacists, dentists, veterinarians and midwives were educated in France and then practised their art in Istanbul, either employed in institutions, or running private offices. This is another subject to be studied.

Professor Esad Isik Pasha who was a graduate of *Faculte de Medecine de Paris* (1893) and worked at the military *Val-de-Grace* Hospital, is an eminent example. He modified the ophthalmoscope, designing the model which was named after him as the ophthalmoscope Essad. Many Ottoman physicians specialized in France. Celal Muhtar Ozden carried out his famous studies on *Trichophyton* while working in the laboratory of Roux and Metchnikoff (1890). The head chemist of the Ottoman Palace, Charles Bonkowski, a man of Polish origin, graduated from *Ecole Supérieure De Pharmacie De Paris* in 1865. The possibility that some Ottoman physicians were awarded membership of the *Académie des Sciences*, is a question to be answered.

The influx of European medical knowledge, health practitioners and technology from France with French medical terms transferred into Turkish is reflected in the literature of the period. French reviews, periodicals and newspapers published in the Ottoman Empire and their French writers are subjects to be studied in this respect. For example, *Gazette Médicale de Constantinople* (1849), *Gazette Médicale d'Orient* (1857), *Revue de Médecine de Pharmacie de l'Empire Ottoman* (1875), *Gazette des Hôpitaux Civils et Militaires de l'Empire Ottoman* (1886), *Revue Médico-Pharmaceutique* (1888) and *Comptes-Rendus du Club Medical de Constantinople* (1903) contain information on medical affairs and medicine, with contributions from European authors. These publications were highly effective.

tive in the development of the 19th century Ottoman medicine. French writers also compiled books on epidemics in the Ottoman provinces, for example, A. F. Bulard's, *De la Peste Orientale* on plague epidemics in Alexandria, Cairo, Smyrna, Istanbul during 1833-38; and Andre Leval's work on the Ottoman quarantine organization and cholera in 1849. Many books on medicine and related sciences were translated from European languages, especially from French into Turkish, mostly in the last quarter of the 19th century. Gulden Dine, one of our PhD students, is preparing a paper on the subject for the Istanbul Congress.

As a result of this choice of France as the main centre for medical education and development, we find French physicians employed in various Ottoman institutions, as well as in the Palace. For example, French physicians such as A. F. Bulard de Meru and L. Robert, director of the quarantine station, played a role in the foundation and activities of the quarantine services. The minutes of the Quarantine Board, consisting of foreign representatives, were in French. The French embassy's delegate at the Quarantine Board was Dr J. Mahe. There were French directors of the Royal Laboratory of Bacteriology, Maurice Nicolle (from 1893) and Paul Simond, and French directors of the Rabies and Bacteriology Laboratory, Auguste Marie (1899) and Paul Remlinger (1901). Andre Chantemesse (1893) who worked in the Istanbul Medical School Laboratory during the cholera epidemic, presented a medical report which helped to determine what measures needed to be taken.

During this period the Ottoman medical community was receptive to the new techniques and methods. There were close relations with the *Pasteur Institute*. An Ottoman committee visited the *Pasteur Institute* in Paris in 1886 to learn about rabies vaccination and there were monetary and royal medal awards from Sultan Abdulhamid II to the Pasteur Institute. There are

archives in the Pasteur Institute about the Ottomans and publications and documents describing the views of the Paris press and medical circles about all these events provide an interesting field to be studied.

Some of the most note-worthy contributions that France made were the foundation of hospitals and social service institutions in Istanbul and in other Ottoman provinces. The best known were the *Hopital des Frangais de Pera* founded for sick French sailors in Istanbul in the 18th century and later expanded with the support of Sultan Abdulhamid II, and the *Hopital de la Paix*, which was built on land assigned by the Sultan Abdulmecid and with his financial aid in 1858. This hospital still exists today and you can visit it when you come to Istanbul.

Wars have been unhappy events, but have been important in developing medical relations. French physicians, as well as British, came to Turkey during the Crimean War (1853-56), and the Navy Central Hospital was assigned to wounded French soldiers.

During the Ottoman-Russian War of 1877-78, Austrian, Hungarian, French and British physicians were employed in the Ottoman army. European physicians and surgeons took part in the activities of the *Ottoman Red Crescent Society* at Plevne and Erzurum. The Germans Carl Rieck, Hilsmann and Waltsechli, served in a commission with the Red Crescent in 1878. Another medical team serving in the Red Crescent at Plevne was headed by the British *Bonne Moor*, and MacKeller and George Sticker and David Criyste Murray, a medical student as well as a war correspondent. Following these two wars, many European physicians settled in Istanbul, mainly in Pera and some also served in the Palace.

Relations between the Red Crescent and the Red Cross in history should be considered as a subject worthy of study. Besides the military

health personnel and services accompanying the military troops, the services of the Red Crescent and the Red Cross in the Tripoli and Balkan campaigns and in the 1st World War also forms an important part of multinational medical activities. The enemy in these battles was not only the other army but disease in the form of epidemics, which respected neither side. Typhus, cholera and dysentery epidemics were thus also an inevitable part of this history. Of these wars, the most tragic one was that which took place at the Dardanelles strait, where all the first-year students of the Ottoman Medical School lost their lives in defending the strait against the Anzacs in 1915, with no students surviving to graduate in the year 1921. Professor John Pearn, a councillor of ISHM, has written on «The First Australian Casualty Clearing Hospital at the Gallipoli Beachhead», and he is planning to lecture on the subject during the Istanbul Congress. A tour to the Dardanelles is organized for the 38th Congress participants.

A brief review of British-Ottoman relations as they refer to medical history, shows the potential for more detailed study. One of the earliest and best-known episodes is the story of the observation of the wife of the British ambassador, Lady Montagu, of smallpox inoculation practised by old women. Her description of this and the application of it to her relatives and acquaintances led to its being known as the Turkish method (1717). There is scope for research into whether this method of smallpox variolation existed in other European countries.

Close relations began after the 1830s and a short time before the declaration of the Ottoman Reform, the *Tanzimat* of 1839, some British physicians had been sent to Turkey by the British Government and the British doctor McCuffog, employed in the British Embassy in Turkey, played a great role in the development of Ottoman-British political relations. When the Ottoman Quarantine Board began to employ European members in 1840, there were British

doctors, for example, Coleman, as a representative of Britain on the Quarantine Board and Dickson, who worked in the quarantine office and was so highly appreciated that he was awarded a royal medal by the Sultan.

The Crimean War was a most effective occasion for fostering further relations with Britain. Many British doctors, like John Hall and Humphrey Sandwich, were employed in the British troops during the Crimean War. Sandwich published his memories of Turkey in his books, *The Siege of Kars* and *The Hekim Bashi*. The Selimiye Barracks in Scutaria was turned into a hospital and assigned to the wounded British soldiers. There will be a Congress tour to this building where British physicians such as Mapleton, the head physician of the British troops and Cumming and Blackwood and many others worked, some of them dying during the typhus epidemic in the winter of 1855.

We have no information of the great number of British physicians employed here. About forty British nurses came to Turkey during the Crimean War and several, namely, Margaret Goodman, Mrs. Roberts, Mrs. Bracebridge, Sophia Barnes and Charlotte Moore worked in the Selimiye Hospital with the founder of modern nursing, Florence Nightingale. They performed a remarkable service here and this work formed the basis of modern nursing. Barnes and Moore died here and were buried in the British Cemetery in *Haydarpasha*, which you can visit during the Istanbul Congress.

A second group of nurses came to Turkey and served in the Kuleli Hospital. The Crimean War led to the foundation of the first Ottoman medical association, the *Societe Medicale de Constantinople* in 1856, amongst the founders of which were Drs Pincoff, McCarthy, McCuffog, Meredith and Julius Millingen. The Society's language was French and it issued the *Gazette Medicale d'Orient*. All these activities were quite new for the Ottomans.

Another product of the Crimean War was the foundation of British, French and Austrian hospitals. The British Seaman's Hospital was founded in 1855 and physicians such as John Patterson and Stanislaw Zebrowski were employed here.

During the Istanbul Congress you can visit the hospital with its interesting architecture, planned and rebuilt by an English architect Percy Adams, in 1904. About a quarter of a century later, many British physicians, such as James Casson, a graduate of the Glasgow Medical School and Drs Geoffrey and Stephenson educated in the Edinburgh Medical School, were employed in Turkey, this time by the Ottoman State, during the 1877-78 Turkish-Russian War. There were a great number of other physicians employed, of whom we know nothing but their names. Following the armistice of the 1st World War, British troops returned again in 1919 and some resided in the School of Medicine in Istanbul. The paper read by the late Professor Sehsuvaroglu during the 23rd meeting of ISHM in London deals with some aspects of English-Ottoman relations in medical history.

Relations with the United States in the 19th century were rather limited, but developed in the 20th century to be wide spread and of great importance. Protestant American missionaries came first in the early 19th century and in 1920 an American hospital was started in Istanbul. The early American health institutions were started by the American Board of Commissioners for Foreign Missions.

Besides hospitals, dispensaries, pharmacies, orphanages and widow houses were founded during the last quarter of the 19th century. Amongst many hospitals founded in different provinces, were the *Aintab* American Medical School (1876) as a department of the Central Turkey College and its hospital, which still exists, and the *Marsovan* hospital (1897) and social aid institutions. However, the main advance in

American medical involvement took place within the first ten years of the 20th century.

In addition to the health institutions and social services mentioned here, many others founded by foreign countries served in the Ottoman State mainly taking care of their own subjects. Examples were the Russian Saint-Nicolas Hospital (1874), the Bulgarian *Eviogui Gueorgieff Hospital* (1902) and the *Associazione Commerciale Artigiana di Pietalando* (1838) founded to aid European labourers and their families and the *Maison de Notre Dame de la Providence* (1839). The Ottoman Sultans gave financial support to foreign and minority health institutions both at their foundation and later, when ever needed. During the Istanbul Congress Professor Nuran Yildirim - a member of ISHM- is going to lecture on hospitals founded by Europeans in Istanbul, describing the causes and needs leading to their foundation.

Health practitioners from many countries, many efficient, some quacks, with different languages and beliefs, were in continuous competition in the area. It would be interesting, as well as informative, to consider the European physicians and surgeons, as well as other personalities, who wrote of their visits to the Ottoman provinces, during different periods, describing their views and impressions of medical practices and problems, thus giving a European perspective to these matters. Such authors include Drs William Witmann, Arthur Reid, Felix Maynard and Armin Muller.

International conferences dealing with Ottoman health questions and politics, such as the *Paris Health Conference* in 1851 reflect the political outlook of European countries towards Ottoman health problems. After the 1865 cholera epidemic, France offered to hold an international health conference in Istanbul. The work of the European delegates who attended the 1866 *International Istanbul Health Conference* would be very interesting to look at, an example being

the study, published by Antoine Fauvel in 1868 «*Le Cholera, expose des travaux de la Conference Sanitaire Internationale de Constantinople*». European-Ottoman relations were not limited to the transfer of medical knowledge and practice, but also included commercial relations. The French and the Germans acted as competitors in the Ottoman field of health. The subject of Ottoman drug and medical equipment trade with European countries is worth discussing as a matter of economical importance.

If the history of medical technology and methods imported from Europe (disinfection, sterilizers, vaccines against hydrophobia, diphtheria etc.) is taken into consideration, one can imagine the extensive relations between the two cultures and hence the social affects on Ottoman society, as well. In addition, a study of Ottoman medical or other equipment exhibited in international exhibitions and the Ottoman health practitioners who went, for example, to the 1858 *Pahs Exposition* and the 1851 and 1862 London exhibitions should allow further observations to be made.

It is important to remember that all Ottoman peoples were citizens and subjects of the Ottoman State as well as being Turks. They were honoured as chosen subjects and favoured by the State and employed and had active roles in the politics and culture in Ottoman society. Minorities and foreigners had health and social aid institutions from their own communities. In fact, Ottoman history is not only the history of the Ottoman Turks, but of all the peoples and countries within the borders of the Ottoman State, who have a common history and are its inheritors.

Thus, nations which started their independent governments later, share a long history with the Turks. These include countries in North Africa - Egypt, Algeria, Morocco, Tunisia and Libya, countries in the Balkan peninsula -Greece, Bulgaria, Albania, Yugoslavia, Rumania and Hungary and countries in the Arab peninsula -

Iraq, Syria, Jordan, Saudi Arabia and Palestine. Insufficient research and publication on their medicine during the Ottoman period is available at present. We hope that the representatives of the countries which were once within the Ottoman domain are able to undertake the study of the subject as a period of their own history.

The story of various institutions, hospitals, pharmacies, laboratories, practices, and politics related to medical history can only be told in detail if researches are made in the archives and libraries of these countries. In addition, libraries and archives of many other countries, such as the British Museum, the Universities of Cambridge and Manchester, The Wellcome Institute in London, the Bodleian, Dublin, Chester Beatty, Berlin, Vienna, Escorial Gotha and Bibliotheque Nationale libraries and archives etc. contain rare and valuable material concerning Ottoman medical history. In addition, there is a great deal of foreign material in the Ottoman State Archive in Istanbul.

The 20th century has developed so fast in so many directions that it will take a long time for detailed study and evaluation. However it is appropriate to comment on the brain drain of medical doctors who have migrated from Turkey to Europe and the USA during the 20th century, now in danger of being forgotten. Like other countries, Turkey needs to think about its current international medical relations as well as those in the recent and ancient past, thus allowing it consider its expectations for the production and transfer of medical science and technology in the future.

This paper is a short look through a long story, intended as an overview for those interested in the field. I hope it will be a stimulus to colleagues leading to the uncovering of new and valuable information, which will help us along a route towards developing our international relations and our understanding of them.