

# DISEASES IN TURKEY: A PRELIMINARY STUDY FOR THE SECOND HALF OF THE 19TH CENTURY

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Ottoman medicine-that is, the medical activities carried out in various parts of the Ottoman Empire from the 14th to the 20th century-was essentially based on medieval Islamic medicine. The latter was itself formed by the grafting of the medical knowledge in Indian, Persian, Syrian and Central Asian Turkish sources on to a foundation of Greek medicine, and was elaborated by such physicians as al-Razi and Ibn Sina in the 9th-11th centuries. In the early centuries of the Ottoman Empire (14th-15th centuries), Ottoman physicians received their training both in the Anatolian hospitals (*darussifa, sifabhane*) and medical centers outside Ottoman territories such as Cairo. The Suleymaniye Medical *Madrasa* founded in Istanbul in 1561 also contributed to the medical education until the mid-19th century. Ottoman physicians widely used the works of Ibn Sina (Avicenna) and other medieval Islamic physicians, their Turkish translations, commentaries and abridged versions as reference books for about five hundred years, that is up to the mid-19th century.

While Ottoman physicians pursued the Islamic medical heritage, knowledge of European Renaissance medicine started to filter in to Ottoman Turkey in the 15th and 16th centuries, transmitted by Spanish, Portuguese and Italian physicians of Jewish origin who took refuge in the Ottoman lands after 1492. Contacts between the Ottoman and European medicines increased in the 17th century when disease treatments (among which was syphilis) were introduced into Ottoman medicine as based on the works of European physicians, such as Jean Fernel, Louis Mercado, and Antonio Fonseca. The 17th century also witnessed the introduction of Paracelsian medicine which the Ottoman physicians called *tıbb-ı cedid* (new medicine) since it made use of mineral drugs. Treatment with mineral drugs was usually practised by *Frenk* (European) doctors working in the Ottoman Empire. Towards the end of the 18th century, the Ottoman notion of "new medicine" was altered along with the medical developments in Europe: new medicine was now viewed as more than drugs consisting of mineral compounds; it was the knowledge based on anatomy and gathered through dissections on the human body.

Two very significant developments at the beginning of the 19<sup>th</sup> century were the publication of Shanizade's book on anatomy, and the opening of the modern medical school in 1827 where European medicine was taught. Shanizade, in his work *Hamse* (Istanbul 1820), stated that knowledge of anatomy was essential for an understanding of the "new medicine" and that anatomy was basic to medical knowledge as well as to the training of physicians. In order to enable the medical students learn anatomy without having resort to dissections, he included in his book tables with realistic and detailed illustrations based on Diderot's *Encyclopédie*. Established in 1827 to train physicians for the Ottoman army, the military Imperial School of Medicine remained for decades the unique institution to teach modern medicine. The Süleymaniye Medical *Madrassa* where classical Islamic medicine was taught became ineffective in 1852. Following the opening of the Civil School of Medicine in 1866, both medical schools played a crucial role in the establishment of modern medicine in Ottoman Turkey. Modern medicine was taught in these schools and practised by European doctors in Ottoman cities; however, physicians trained in Islamic medicine and its traditional therapies were still popular in Turkey at the end of the 19<sup>th</sup> century. For the purposes of the present paper, which attempts to survey the common diseases in the second half of the 19<sup>th</sup> century in Ottoman Turkey, it was deemed necessary to present this twofold character of the Ottoman medicine, that is, the co-existence of modern European with traditional Islamic medical knowledge.

Historical studies on Ottoman medicine were begun towards the end of the 19<sup>th</sup> century in order to highlight the contributions of Turkish physicians to medical science, and to refute the claims by European doctors who argued that medical education could not be conducted in Turkish.<sup>1</sup> Studies thus far have mostly focused on medical education, histories of health institutions, and biographies of Turkish physicians; the history of diseases has usually been neglected. The most comprehensive study on the history of a disease in the Ottoman Empire was Daniel Panzac's *La Peste dans l'Empire Ottoman 1700-1850*. According to Rhoads Murphey, the reason why studies mostly focused on institutional history was that sources on this topic were most easily accessible. To study the history of diseases, one needs to consult a much greater variety of sources such as archival documents, literary works, memoirs, autobiographies and travel journals.<sup>2</sup> Uncovering the appropriate sources is difficult, especially for the period prior to the 19<sup>th</sup> century. Almost all the works

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1. The teaching of modern medicine in the Imperial School of Medicine was conducted in French up to 1871.

2. Rhoads Murphey, "Ottoman medicine and transculturalism from the sixteenth through the eighteenth century," *Bull. Hist. Med.*, LXVI, 1992, 376-403.

used or written by Ottoman physicians before the introduction of modern medicine in the 19<sup>th</sup> century were based on the works of medieval Islamic physicians. They were similar to present day textbooks on internal diseases, and pharmacopoeia. As they contained no case-studies or information about common and local diseases, it is rather difficult for the modern medical historian to prepare a medical topography of the Ottoman Empire.

As one comes to the mid-19<sup>th</sup> century, the situation is much more comforting since at this date medical and pharmaceutical journals started to be published in Turkish and French.<sup>3</sup> These journals included articles on epidemics and contagious diseases in the Ottoman Turkey, case-studies, articles introducing the drugs and also hospital statistics, though rare. Although these sources provide us with a general view of the medical situation of the Empire, it is not so easy to conduct a thorough survey since the vast geography and variable climate of the Empire require a distinct study for each region.<sup>4</sup> In my opinion, this kind of a survey requires a joint study by historians and physicians. Thus, this paper should be regarded as a preliminary study aiming to collect bibliographical data on diseases in 19<sup>th</sup> century Turkey.

As I progressed on my research, it became apparent that I needed to limit my study geographically; the paper thus concentrates mainly on the city of Istanbul, the capital of the Empire. Istanbul can be considered as the medical center of the Empire, since here was situated the Imperial Medical School where modern medical education began in Turkey. There were more doctors and hospitals established here than in any other city of the Empire. Secondly, considering that patients from all over the country came to Istanbul for treatment, it is likely that statistics of the hospitals here give some indication of the diseases frequently encountered within the Ottoman Empire. Finally, since it exceeds the limits of this article to go through all medical and pharmaceutical journals published in the second half of the 19<sup>th</sup> century, I focused on the following publications:

1. *Gazette Médicale de Constantinople (RMConst)* (Istanbul, 1849-1852) was published by the Imperial Medical School and contained articles on the education

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3. The reason why some journals concerning medical and pharmaceutical sciences were published in French in the second half of the 19<sup>th</sup> century is that: firstly, the teaching of medicine was conducted in French between 1839 and 1871 at the Imperial School of Medicine and secondly, there was a good number of European doctors practicing medicine in the Ottoman cities.

4. A number of studies dealing with the medical topographies of Izmir, Baghdad, Derna, Basse-Albanie, Ile de Soulina (Delta du Danube) were published in *Gazette Médicale d'Orient and Revue Médico-Pharmaceutique* between the years 1859-1894.

conducted in this school as well as case-studies, statistics of some military hospitals in Istanbul, and studies on diseases. The journal came out in French for the benefit of the foreign physicians working in Istanbul. There was also a Turkish version, *Vekayi-i Tibbiye*, including popular articles written for a much larger group of readers. This Turkish version was especially important in the history of Turkish medicine, for it was the first medical journal published in Turkish.<sup>5</sup>

2. *Gazette Médicale d'Orient (GMO)* (Istanbul, 1857-1925) was published by the Société Impériale de Médecine de Constantinople founded in 1856 by the physicians of the English, French and other allied armies who had arrived in Istanbul for the Crimean War (1853-1856).<sup>6</sup> The society later grew larger as the European doctors in Istanbul and non-Muslim Ottoman physicians joined the founding members. In 1857, the society initiated the publication of *Gazette Médicale d'Orient* containing articles on the medical constitution of the Ottoman Empire as well as information on epidemics, new therapies, case-studies, minutes of the society's scientific meetings and a few hospital statistics. It is thus a very productive source regarding information on the diseases in Turkey in the 19<sup>th</sup> century. The journal was published for sixty-five years until 1925 and deserves study in its own right.

3. *Revue Médico-Pharmaceutique (RMPh)* (Istanbul, 1888-1914) was published by Pierre Apéry, a French pharmacist professing in Istanbul. It started out as a monthly journal, but came out bi-monthly after 1900. Each issue contained articles on medical and pharmaceutical practices within the Ottoman Empire, information on new pharmaceutical techniques and drugs, abstracts published in European journals, book reviews, biographies and bibliographies.<sup>7</sup>

4. Robert Rieder's (1861-1913) two-volume work *Für Die Turkei* (Istanbul 1903 and 1904). Professor of surgery at the Bonn Faculty of Medicine, Dr. Rieder came to Turkey in 1898 and worked as "Head of the Gulhane Military Hospital" and "Inspector at Imperial School of Medicine" until 1904.<sup>8</sup> This work introduces

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5. Yesim Isil Ulman, *Gazette Médicale de Constantinople ve Tıp Tarihimizdeki Önemi*, Istanbul 1999, unpublished PhD thesis, Istanbul University, Istanbul Medical Faculty, Chair for Deontology and History of Science.

6. Ekrem Kadri Unat, 'Osmanlı Devleti'nde Tıp Cemiyetleri," *Osmanlı İlmî ve Meslekî Cemiyetleri*, ed. E. İhsanoğlu, Istanbul: Istanbul University & IRCICA, 1987, pp.85-110; Hüsrev Hatemi & Aykut Kazancıgil, Türk Tıp Cemiyeti (Derneği), Cemiyet-i Tibbiye-i Sahane ve Tıbbın Gelismesine Katkıları", *op.cit.*, pp.111-119.

7. Turhan Baytop, *Türk Eczacılık Tarihi*, Istanbul: Istanbul University, p.277. I thank Professor T.Baytop for allowing me to go through the *Revue Médico-Pharmaceutique* volumes in his private collection.

8. Arslan Terzioğlu, Türkiye'de Gorev Yapmış olan Alman Asıllı ve Deneyisel Bilim Dallarındaki Profesörlerin Biyografileri," *Türk-Alman tıbbi ilişkileri*, ed. A.Terzioğlu, Istanbul 1981, s. 196-197

all aspects of the Gulhane Military Hospital and also gives statistics for the number of patients treated at the clinics of Gulhane between 1899-1903.

The above mentioned four works cover the period between 1849-1914. They provide us with a) the statistics of Istanbul military hospitals, though very few and only for certain years b) the information on drugs on the market through the drug advertisements contained in them c) articles and reports about the common diseases as well as the medical constitution of the Ottoman Empire, especially of Istanbul.

### Diseases as in Military Hospital Statistics

Three groups of statistics were found for Istanbul military hospitals:

1. The 1849-51 statistics of Istanbul military hospitals, published in *Gazette Médicale de Constantinople*
2. 1861-65 and 1873-74 statistics of the Imperial Naval Hospital, published in *Gazette Médicale d'Orient*
3. 1899-1904 statistics of the Gülhane Military Hospital, from *Für die Türkei*.

The 1849-1951 statistics belong to seven military hospitals in Istanbul. These were Haydarpasa Hospital, Naval Hospital,<sup>9 10 11</sup> Internal Clinic of the Imperial Medical School, Eskisaray,<sup>12</sup> Kuleli, Büyük Liman and Maltepe<sup>13</sup> military hospitals. The statistics were generally short and covered a period of 1-2 months. The one-month statistics of Haydarpasa Military Hospital from September 1<sup>st</sup> to October 1<sup>st</sup>, 1849 seems to be the first hospital statistics ever published in Turkey.<sup>14</sup> In most of these statistics, diseases were not classified in groups but were listed alphabetically. The lists included the number of incoming and outgoing patients, the total number of patients and mortality rate for each disease. As gathered from the 1849-51 statistics, respiratory and gastro-intestinal disorders were the most

9. Dr. Muhlig, "Bulletin des Hôpitaux: Hôpital de la Marine", *Gazette Médicale de Constantinople*, 1e Année, Décembre 1849, s.22-31.

10. Muhlig, "Bulletin des Hopitaux - Rapport des maladies traités en decembre 1849 et en janvier 1850 à l'Hôpital de la Marine," *GMConst*, 1e Année, fevrier 1850, pp.17-26.

11. Statistique de l'Hôpital de la Marine Impériale pour le mois de janvier 1851, *GMConst*, 2eme Année, Nr.10, février 1851, pp.16-19

12. *GMConst*, 2eme Année, Nr.10, fevrier 1851, pp.20-28.

13. *GMConst*, 3eme Année, Nr.3, juillet 1851, pp.36-38.

14. "Hôpital Militaire de Haidar-Pacha: Mouvement des Malades du 1er Septembre au 1er Octobre 1849," *GMConst*, 1e Année, octobre 1849, pp.27-28.

common diseases at these seven hospitals. 20-54 % of the patients suffered from respiratory disorders; bronchitis, tuberculosis, and pneumonia being the most frequent ones varying on the month of the year. Dysentery, typhus, diarrhoea and stomach disorders were among the most frequent gastro-intestinal diseases and were followed by fevers, rheumatismal, skin, cardiac and venereal diseases.

The second set of statistics were those of the Imperial Naval Hospital for trimester periods between the years 1861-65 and 1873-74. Of the 17 statistics published, we have derived the following tables:

**Table I**  
**Distribution of diseases in the Imperial Naval Hospital (Istanbul)**  
**(1.12.1861-1.3.1865) and (1.10.1873-30.9.1874)**

Respiratory and circulatory diseases	6 032	25.42%
Gastro-intestinal system diseases	4 819	20.31%
Infectious diseases	2 775	11.69%
Surgical diseases	2 290	9.65%
Courbature	2 126	8.96%
Skin diseases	1 233	5.19%
Locomotor system diseases	1 149	4.84%
Nervous system diseases	1 070	4.5 %
Venereal diseases	897	3.78%
Simulation	652	2.74%
Genito-urinary system d.	403	1.6 %

**Table II**  
**The most frequent diseases in the Imperial Naval Hospital (Istanbul)**  
**(1.12.1861-1.3.1865) and (1.10.1873-30.9.1874)**

Catarrhe pulmonaire (acute + chronic)	2719
Courbature	2126
Intestinal Catarrh	1515
Typhoid fever and typhus	1401
Pulmonary tuberculosis	1311
Lumbago	854
Dysentery	709
Gastric catarrh	763

Intermittent fever	679
Muscular and articular rheumatism	429
Blennorrhagy	155

In the Table I and II, the high rate (8.96 % of patients) of *courbature*<sup>15</sup> cases merits attention. This rate is quite close to the rates of infectious (11.69 % ) and surgical (9.65 %) diseases. The regular French dictionary defines *courbature* as "douleur dans les membres par suite de maladie, de fatigue."<sup>16</sup> According to *Larousse Médical*, it was a sense of excessive fatigue in the back accompanied by muscular pain, fever and lack of appetite. It may emerge due to prolonged overwork or can be the sign of a infectious disease, especially typhoid fever and influenza. In the first case, bed rest, nutritious diet and baths would lead to recovery.<sup>17</sup> It might be also caused by immobility in a humid, cold environment and in this case *courbature* was wrongly taken for lumbago.<sup>18</sup> The French-English dictionary defines *courbature* as "stiffness in the back and limbs, lumbago."

*Courbature* first appeared in hospital statistics under "Infectious Diseases" and later on under the "Appendix" together with "faiblesse," "marasme"<sup>19</sup> and "simulation." It was mentioned only in the statistics of the Imperial Naval Hospital and was encountered neither in the indexes of medical and pharmaceutical journals under study nor among the drug advertisements. In 1873, the Turkish word for *courbature* was defined as *kırıklık*.<sup>20</sup> *Kırık* literally means broken and *kırıklık* is a state of fracture. In 1890 *kırıklık* was defined as a general sense of uneasiness and languor.<sup>21</sup> The term *kırıklık* is still frequently used in the present-day Turkey as well. The term must have been coined to describe the pains similar those one has when he has a broken arm or leg. It was not considered as a disease but rather an indicator of a coming fever or was used to describe the muscular pains still felt in the whole of the body after a long fever. It would never denote the pain of a specific organ; in this case, the word *ağrı* (baş ağrısı = headache) would be used. It is different from fatigue (*yorgunluk*), indisposition (*rahatsızlık*), debility (*zafiyet*) or lack of

15. From French court et battu.

16. Nouveau Petit Larousse, Paris 1969, p. 231

17. *Larousse médical illustré*, sous la direction du Dr.Galtier-Boissiere, Nouvelle Édition par Dr. Burnier, Paris 1924, p.316.

18. *Larousse du XXe siècle*, vol. .. p. ...

19. *marasme*: *cachexie*, excessive weakness due to prolonged diseases such as rachitisme, heart and kidney diseases, scorbut, fievres intermittentes, neurasthenia, cancer, tuberculose, alcoolisme, anemia, syphilis.

20. *Lugat-ı Tibbiye (Dictionnaire des Sciences Médicales Français-Turc)*, Istanbul 1873, p. 151.

21. James W. Redhouse, *A Turkish and English Lexicon*, Beirut: Librairie du Liban, 1890, p. 1505

bodily strength (*dermansızlık, halsizlik*).

The third and last set of statistics that I consulted belong to the end of the 19<sup>th</sup> century. These were the 1899-1901<sup>22</sup> and 1901-1903<sup>23</sup> statistics of the Gülhane Military Hospital founded in Istanbul in 1898. The classification of diseases in the Gülhane Hospital statistics was slightly different from those of the previous statistics. For instance, pulmonary tuberculosis was not grouped under respiratory diseases, but classified as an infectious disease. Therefore, if pulmonary tuberculosis cases had been included among "respiratory system diseases", the ratio of respiratory diseases would have risen to 11.4 and 21.68 % in the 1899-1901 and 1901-1903 statistics respectively.

**Table III**  
**Distribution of diseases in the Internal Clinic of the Gulhane Military Hospital**  
**(1899-1901) and (1901-1903)**

	1899-1901	1901-1903
<b>Total number of patients</b>	14891	4044
Infectious diseases (Pulmonary tuberculosis 733/383, syphilis, gonorrhoea, malaria, dysentery and others)	3297 (22%)	788 (19%)
Gastrointestinal diseases (Dyspepsia and chronic stomach catarrh 929 /439 and others)	2564 (17%)	956 (23%)
Skin disorders (Eczema 498/355 and others)	1521 (10%)	
Nervous system diseases (Hysteria 339/148, neurasthenia and others)	1103 (7%)	603 (14%)
Respiratory system diseases (Bronchitis 609/315, emphysema, pleuritis)	967 (6.5%)	494 (12%)
Malnutrition and blood diseases (Anemia and chlorosis 620/301)	812 (5%)	415 (10%)
Circulatory system disorders (Heart valves 332/166, haemorrhoids, arteriosclerosis)	696 (4.7%)	283 (7%)
Locomotor system diseases (Rheumatoid arthritis 418/218 and others)	686 (4.6%)	279 (6.8%)

22. Robert Rieder Pascha, *Für Die Türkei*, vol I, Jena: Gustav Fischer 1903, pp.316-322.

23. Robert Rieder Pascha, *Für Die Türkei*, vol II, Jena: Gustav Fischer 1904, pp. 135-141.

It is obvious that a study of these three sets of statistics, belonging to the beginning, middle, and end of the 19<sup>th</sup> century respectively, does not suffice, by itself, to attain a thorough and final evaluation of diseases for a 50 year period. That we do not have the civil hospital statistics is a great weakness of our data. These statistics also exclude cases cured at home without being hospitalized. The image of the medical situation as suggested by these statistics may be sharpened with information gleaned from drug advertisements. In any case, the available data indicates that pulmonary diseases (bronchites, catarrhe pulmonaire, tuberculose, pneumonie), gastrointestinal disorders (catarrhe intestinal, catarrhe gastrique, diarrhées, dysenterie), infectious diseases (fièvre typhoïde, typhus) were, respectively, the most common diseases in military hospitals in the second half of the 19<sup>th</sup> century.

### Diseases as in Drug Advertisements

In the 19<sup>th</sup> century, drugs imported from Europe were concurrently used with those inherited from traditional Islamic medicine. While traditional drugs were largely used in rural areas, the European drugs were mainly used in large cities by the wealthy. In the second half of the century, the number of European drugs on the market-especially in Istanbul-grew considerably. There were also drugs, in which the active principle was imported from Europe but the drug itself was compounded in Istanbul. These drugs were similar to those imported from Europe but were much cheaper. The act of preparing and compounding medicines was carried out by the European and non-Muslim Ottoman pharmacists in Istanbul. The first Turkish pharmacist to prepare pharmaceuticals ("spécialités pharmaceutiques") was Hamdi Bey who opened a drugstore in Istanbul in 1880 and compounded digestives, tonics, antiseptics or injury healing ointments. In the following years, Turkish pharmacists largely manufactured tonics and put them on the market. There were also drugs for nervous disorders, analgesics, purgatives and antiseptics. These were not specific drugs curing specific diseases, but rather drugs having a wide spectrum, thus easy to sell.<sup>24</sup>

The number of European drugs (especially French) in the Istanbul drugstores surpassed greatly the number of locally manufactured drugs. They were largely advertised in medical and pharmaceutical journals issued both in Turkish and

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24. Turhan Baytop, *Laboratuvar'dan Fabrika'ya - Türkiye'de İlaç Sanayii (1833-1954)*, Istanbul: Bayer 1997, p.18

French. One of the first advertisements concerning remedies was published in *Le Moniteur Ottoman*, the French version of the Ottoman official newspaper *Takvim-i Vekayi*. It was announced here that a doctor from the Paris Faculty of Medicine cured certain skin disorders such as acnes, eczema, scabies and many others. In this paper, our search of advertisements for drugs is confined to the above-mentioned pharmaceutical journal, *Revue Médico-Pharmaceutique*. Drug advertisements that appeared in this journal between 1888-1914 can be grouped as follows:

1. Most of the drug advertisements were reserved for drugs used in the treatment of the gastrointestinal disorders, among which were "affections gastriques," "troubles digestives," constipation, "diarrhées rebelles et chroniques" and dysentery.
2. In the second group were tonics and anti-anemics. These were recommended especially in cases of anemia, chlorosis, fatigue and debility.
3. Drugs for respiratory diseases: These were mainly used in pulmonary diseases such as tuberculosis, pleurisy, pneumonia, chronic bronchitis, asthma and emphysema.
4. Drugs for neurological disorders: insomnia, neurasthenia, nervous degeneration.
5. Analgesics were recommended in cases of migraine, stomach aches, chronic and articular rheumatism, gout, kidney stones.
6. Antiseptics and disinfectants: These ads were especially popular during the years of the cholera epidemic.
7. Drugs for skin disorders such as burns, eczema, acnes and others.

Apart from these, there were also a good deal advertisements for drugs that "cured all diseases". An example was *Vin Nourry*. This syrup, made up of "iodure de potassium" and "tannate de fer" was used in cases of anemia, debility, lack of appetite, coughs, influenza, bronchitis, asthma, rheumatoid aches, eczema, acnes and also in the treatment of epidemics. The advertisement reads as follows:

### VIN NOURRY (iodotane)

#### Lymphatisme

glandes, tumeurs, goitre, gourmes, sécrétions purulentes des yeux ou des oreilles, scrofules

#### Anémie

débilité générale, langueur, convalescences, manque d'appétit, pâles couleurs, formation difficile des jeunes filles, règles douloureuses et anormales, troubles du retour d'âge

#### Maladies de poitrine

toux persistante, grippe, bronchite, phtisie, asthme, emphysème, catarrhe chronique

**Rheumatismes**

douleurs, gêne et inflammation des articulations

**Affections de la peau**

eczéma, boutons, acné

**Antimicrobienne et antiseptique**

en temps d'épidémie

**DISEASES IN ISTANBUL IN THE SECOND HALF OF THE 19TH CENTURY**

Other sources of information on the common diseases were the debates held and communications presented at the scientific gatherings at the Société Impériale de Médecine in Istanbul. When the Society was founded in 1856, discussions mainly focused on typhus and scurvy cases encountered amongst the soldiers of allied forces in Istanbul. The reason why scurvy was common in the allied armies and not among the Ottoman soldiers was that the former were fed merely on biscuits whereas the Ottoman diet included healthy food and newly cooked bread. Another disease under discussion was "Fièvre Jaune de Smyrne" called "jaunisse noire" in some regions of the Asia Minor and as "peste jaune" in some others. Some doctors qualified it as an oriental disease, and yet others claimed that it was "Fièvre Jaune d'Amérique" itself or resembled it in most ways.

Later on, the sessions of the Society focused mainly of the etiology, contagion, diagnostics, therapy and prophylaxis of the epidemics and contagious diseases such as cholera, dengue fever, dysentery, smallpox, typhoid fever, diphtheria, syphilis and rabies. The treatment of pneumonia by bleeding was also debated. The spread of pneumonia in Istanbul was mainly due to the renunciation of the old habits of life and nutrition such as temperance and plain food. With the communication "Prostitution a Constantinople" by Zoeros Pasha, much attention was

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25. It was noted that rabies cases were less in Turkey than in European countries. Remlinger, Director of the Institut Antirabique d'Istanbul argued that the reason was due to the fact that dogs in Istanbul have the "forme paralytique" of the rabies and not the "forme furieuse" (*Cinquantenaire de la Société Impériale de Médecine de Constantinople (1865-1906)*, Istanbul [1907 or 1908], pp. 52, 95). Doctors from the Imperial School of Medicine were sent to Paris to work with Pasteur to learn about the rabies vaccine and also to present him the Mecidiye decoration and a donation of 10 000 francs on behalf of Sultan Abdulhamid. Upon their return six months later, they worked in the foundation of the "Institut Antirabique et Bactériologique" in Istanbul in 1887. The first human inoculation after Pasteur's method was performed in 22 May 1887. In about two years 41 people were inoculated. When compared with inoculations performed in similar European institutes, this number was rather low (A.Zoeros, "Notice sur les travaux de l'Institut Antirabique de Constantinople," *RMPb*, 2ème Année, Nr.3, 31 Mars 1889, pp.37-43).

drawn to venereal diseases within the period of 1866-70. The Society also debated the treatments of diphtheria and typhoid fevers by serums and syphilis by mercury injections. The question of whether tuberculosis and leprosy were contagious or not as well as the controversial issue of the rarity/frequency of rabies cases were often debated.<sup>25</sup>

## Pulmonary Diseases

As can be figured from the above data, pulmonary disorders were the most encountered diseases in military hospitals starting from the mid-19<sup>th</sup> century. Among these, the most frequent was tuberculosis. In 1869, A. Marroin stated that tuberculosis was the most common disease in his department and this disease was much more frequent among the boatmen (*kayıkçı*) who really had an arduous job.<sup>26</sup> Tuberculosis became much more widespread at the beginning of the 20<sup>th</sup> century: Popular booklets describing the prevention and therapy of tuberculosis surpassed the number of works on all other diseases. Other pulmonary diseases included bronchitis, emphysema and pleuritis, which mostly appeared during the winter. Although we do not have the disease mortality rates for every city, it seems that rate was highest for pulmonary diseases.<sup>27</sup>

Another pulmonary disease encountered in Istanbul in the second half of the 19<sup>th</sup> century was dengue fever, known in Turkish as *paçavra hastalığı*, a type of influenza. This was an epidemic prevalent in most tropical countries and in the East. As the disease first appeared in Istanbul in June 1889, doctors referred to it as "our new guest". Surprisingly enough, the disease dwelled not in the unsanitary and dirty regions of Istanbul but in the clean and airy neighbourhoods of the city. Zoeros Pasha, director of the Institut Antirabique et Bactériologique in Istanbul, initiated a series of microbiological research in order to find out what microorganism caused the disease. He conducted studies on patients and on cadavers who died of the disease. The epidemic was also discussed at sessions of Société Impériale de Médecine.

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26. A. Marroin, "Constitution médicale du printemps de l'année 1868", *GMO*, 13e Année, Juillet 1869, Nr.4, pp.49-50.

27. Mortality in Izmir in the year 1900: the highest rate was in tuberculosis (515 out of 3 255), pneumonia (201), typhoid fever and bronchitis. *RMPb*, 14ème Année, Nr.4, 15 Février 1901, p.48.

## Gastrointestinal Disorders

While gastrointestinal disorders constituted the first rank in drug advertisements, they were the second in hospital statistics. The most common were acute intestinal catarrh, gastric catarrh, dysentery and typhoid fever. On the other hand, drug ads suggest that dyspepsia, constipation and chronic diarrhea were the most frequent gastrointestinal disorders. Apart from these, thousands of people were killed in Istanbul during the cholera epidemics of the 19<sup>th</sup> century.

### *Cholera*

Ottomans confronted cholera for the first time in the 19<sup>th</sup> century and called it *maraz-ı cedit* (new disease), *illet-i cedit* (new malady) or *çarık çıkartmaz* (the disease which does not leave you time to take off your shoes). This last term is rather a common name used among the public and denotes the immediate death bringing characteristic of cholera. Truly, it was noted that about sixty or eighty thousand people died during the six cholera epidemics in Istanbul between 1831-1893.<sup>28</sup> Cholera generally came to Istanbul through sea voyages or was brought by the pilgrims returning from Mecca. Ships that came from Odessa in 1831, from Trabzon in 1847, from Marseilles in 1854 and from Egypt in 1865 also brought along the epidemics of cholera.

The disease first appeared in Istanbul in 1831<sup>29</sup> and a pamphlet describing methods for prophylaxis and therapy was published the same year: *Illet-i Cedide Risalesi* (*Treatise on the New Malady*) by the chief-physician Behçet Efendi. Methods of prophylaxis included pouring vinegar over red-hot stone, burning storax, cypress and juniper seeds, keeping away from closed areas, avoiding eating too much or fatty foods, and also refraining from consuming milk products, eggs, fruits, and alcohol. Once the disease emerged, it was recommended that the patient's body be rubbed with solutions of spicy plants mixed with vinegar. Leeching and making the patient sweat were also thought useful therapies.

28. "Bulletin Epidémiologique", *RMPH*, 23e Année, Nr.17, 1er Septembre 1910, p.195.

29. A study titled *Mémoire sur la fièvre algide sub intrante dite choléra morbus* was published in Istanbul in 1832 on the 1831 cholera epidemic by Dr. Ferry, a physician from the French Hospital at Galata ("Bulletin Epidémiologique", *RMPH*, 23e Année, Nr.17, 1er Septembre 1910).

The epidemic of 1831 initiated a number of quarantine practices in the Ottoman Empire, the first of which was exercised along the Bosphorus where ships coming from or going into the Black Sea were quarantined in two different coves. In 1835, the epidemic arrived from the Mediterranean, so this time the Dardanelles were put under quarantine. In 1838, a Quarantine Assembly was founded and the number of quarantines was increased throughout the Empire and health offices (Offices de Santé) were established.<sup>30</sup>

The second cholera epidemic in Istanbul occurred between October 1847-December 1848, and the third epidemic arrived from Europe in 1854. French soldiers who came to Istanbul on their way to the Crimean War brought along the cholera from Marseilles. A new epidemic broke out in 1865<sup>31</sup> and was followed by the epidemics of 1871-76. Dr. Chantemesse, a student of Pasteur, was invited to Istanbul during the 1893 epidemic and the first *tebhirhane* (disinfection station) was opened upon his recommendation.<sup>32</sup> Thus, disinfection processes were employed in the prophylaxis of cholera after 1893 to supplement quarantine practices.

Whether quarantine was efficient in preventing cholera or not was debated by various physicians at different times. For example, during the epidemic of 1847-48, Dr. Riegler stated that quarantine would not work in cases of cholera. Instead, he expressed the necessity of chemical disinfection in residences, ventilation of the rooms, avoiding fresh fruits and vegetables, and controlling alcohol consumption. He did not agree with the idea that the disease was transmitted contagiously from one person to the other. Instead of calling attention to the disinfection of polluted water, he focused on the improvement of atmospheric conditions and mentioned the irregularity of its propagation.<sup>33</sup> On the other hand, Dr. Mongéri who made a detailed study on the cholera epidemic of 1865 did not altogether object to quarantine practices, but stated that quarantine measures alone were not sufficient in the control and treatment of the disease. There were also those people asking for the abolishment of quarantine exercises as they were not to the advantage of commercial transactions. They claimed that the system of quarantine did not work at all

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30. A. Leval, "Notice sur l'organisation des quarantaines de la Turquie," *GMConst.*, Novembre 1849, pp.16-22.

31. Mortality of this epidemic is given as 35 000 in three months by *RMPb* (23e Année, Nr.17, 1er Septembre 1910, p.195) while Dr. Mongéri mentioned that 13-14 000 persons were dead during the same period. See n 25.

32. "Bulletin Epidémiologique", *RMPb*, 23e Année, Nr.17, 1er Septembre 1910, p.195; Nuran Yıldırım, "1893 İstanbul Kolera Salgını İstatistikleri," *Tarih ve Toplum*, vol. 25, Nr. 150 (June 1996), pp.51-54.

33. Robert Riegler, "Epidémie du Choléra-Morbus à Constantinople en 1847 et 1848", *GMConst.* 1ère Année, Janvier 1850, pp.22-31, Février 1850, pp.1-11, Mars 1850, pp.5-16 et al.

and merely disinfection measures would suffice (i.e., advocates of "l'École de Koch"). However, there were also those physicians who considered that quarantine when supplemented by disinfective measures was the best, the safest, the easiest and the most practical method in the prophylaxis of cholera.

The observations of Dr. Mongéri displayed also the attitude of the public during the 1865 epidemic.<sup>34</sup> According to Mongéri, victims were mostly poor people and intemperant. Due to the different attitudes displayed by the Muslim and non-Muslim populations towards the disease, Muslim families suffered relatively less than the non-Muslim people who left their residences and tried to flee when confronted with an epidemic. Muslim families isolated themselves from public intercourse as the cholera epidemic started and thus, in a way, put themselves under strict quarantine. According to Mongéri, this attitude was due to the Muslim belief in fatalism: If this is our destiny, what is the use of trying to get away? On the other hand, even though they tried to move away, they weren't as fast as non-Muslim families. Non-Muslims could easily live with their relatives or friends until they found a new dwelling. Muslims could not easily follow this way out because of their living habits where men and women were accustomed to living in separate apartments of the house. Thus, every Muslim family, though very poor, had to find a new dwelling before moving. In the epidemic of 1865, the Military School was also protected from the disease with this practice of isolation. The non-Muslim population, fearful of getting infected with the disease, fled to different parts of the city and lived with their relatives as soon as cholera was seen in their vicinity. They brought all their belongings with them: the furniture, clothing and even the bodies of the family members who had died of cholera, thus, spreading the disease all over the city.

Physicians writing about cholera in Turkey in the 19<sup>th</sup> century opined that the spread of the disease was due to poverty and misery, inadequate nutrition, debility of the organism as result of hard work, over-crowding in the streets and inns, habits of different populations living within the Empire, and especially unsanitary living conditions. Firstly, toilets were open in most houses, there was no system of flowing water, and the drainage systems were not built properly. On the other hand, narrow and crowded streets, the inns where merchants lived or spent the

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34. Mongéri, "Etude sur l'épidémie de choléra qui a régné à Constantinople," *GMO*, 9e Année, Décembre 1865, Nr.9, pp.132-137; Janvier 1866, Nr.10, pp.149-153; Février 1866, Nr.11, pp.163-168; Avril 1866, Nr.1, pp.6-9; Mai 1866, Nr.2, pp.21-24; Juin 1866, Nr.5, pp.38-42; Juillet 1866, Nr.4, pp.53-57; Août 1866, Nr.5, pp.71-74; Zennaro, "Étude sur le choléra à l'occasion de l'épidémie de Constantinople en 1865," *GMO*, 12e Année, Avril 1868, Nr.1, pp.6-9 and the following issues.

night were centers of infection. There were about 460 inns in Istanbul and some could accommodate 1500-2000 people. These were stone buildings and sometimes 10-15 people had to spend the night together in a small, badly conditioned and damp room, which facilitated the diffusion of the disease. On the other hand, physicians also mentioned the over consumption of fresh vegetables and unripe fruits such as corn, cucumber, green plums, watermelon and peaches which prepared suitable grounds for the spread of cholera. Food such as yoghurt, mussels, oysters, beans and cabbage, all difficult to digest, also contributed to the development of this disease.

Dr. Chantemesse, who was invited from France during the cholera epidemic of 1893, asserted that contaminated drinking water was instrumental in the spread of cholera. During heavy rains, drains of neighbouring villages flew into the streams feeding the dams, thus contaminating the water supply system. He stressed that Istanbul should be provided with non-contaminated water. Thus, the evacuation of villages next to the dams and the establishment of disinfection stations were effective in preventing the spread of the 1893 epidemic.

### *Dysentery*

Dysentery was a common disease in the second half of the 19<sup>th</sup> century in Istanbul, mostly during the spring and summer. Dr. De Castro, the chief physician of the Haydarpaşa Military Hospital, pointed out the fact that the summer of 1849 witnessed an increase in gastrointestinal disorders as usual. According to Castro, the fundamental reasons were atmospheric conditions (hot summer weather), transpiration, and the abundant consumption of fresh fruit during these months. He claimed that he usually cured summer dysentery with diets but also used opium in some acute cases, and argued that bleeding had proved unsuccessful.<sup>35</sup>

An article dated 1861 qualifies dysentery as an "endemic disease occurring at a certain period every year". Dysentery usually started during the summer solstice, reached its peak at the end of September and then diminished slowly. The "evening strolls" and "sea baths" were mentioned among the causes of the disease.<sup>36</sup> In the records of 1861, diets and the use of purgatives were generally recommended while bleeding was performed in cases with fever.

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35. Dr. de Castro, "Exposé rapide de la constitution médicale de Constantinople pendant les mois de Juillet, Août et Septembre 1849," *GMConst*, 1ère Année, Octobre 1849, pp.23-28

36. Callias, "De la dysenterie estivale de Constantinople," *GMO*, 5e Année, Novembre 1861, Nr.8, pp. 115-119.

At the end of the 19<sup>th</sup> century dysentery was still a widespread disease in Istanbul and all over the Ottoman Empire. Rieder Pasha, director of the Gulhane Military hospital, noted that dysentery patients came not only from Istanbul but also from Anatolia, Syria, and the Arabian peninsula. He also mentioned that the disease was common during the spring and summer months, and more dysentery cases were encountered among patients with tuberculosis, emphysema and cirrhosis. He, too, emphasized that the existence of this disease in Istanbul was due to the inadequate drainage system of the city and the penetration of the drains directly into the soil, contaminating the cisterns all over the city. Both contaminated drinking water and the lack of flush systems in the toilets facilitated the spread of dysentery.<sup>37</sup>

## Skin Diseases

### *Variola (Smallpox)*

Up to the last quarter of the 19<sup>th</sup> century, the method employed in Turkey to prevent variola was inoculation. This method, where the purulent matter obtained from the variola patient was inoculated to healthy people, had been in use in India and China, and probably came to Turkey through Central Asia. It was employed in Istanbul and Anatolia in the 17<sup>th</sup> century and its description was published first in Istanbul and then in Europe by Emanuel Timonius in 1713. In 1717, it was introduced to Europe by Lady Wortley Montegu, wife of the English ambassador in Istanbul. In the middle of the 18<sup>th</sup> century, the method was tested in London on convicts to be executed and proved successful. In 1798, Jenner found out that inoculation of the cow pus to humans provided good protection against variola.

In 1811, Shanizade Mehmet Atallah produced a vaccine from cows, which proved to be a failure. Mustafa Behçet Efendi, chief-physician of the sultan, translated Guisepe Marshall's work on vaccination (Palermo, 1801) into Turkish in 1831. About fifteen years later, in 1847, attempts were made to produce cow-pox vaccine in Istanbul. Ismail Pasha started the vaccination of viruses obtained from young cows infected with cowpox; however, this method soon gave way to the old method of inoculating the human variola virus as the new system caused smallpox

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37. Robert Rieder Pascha, "Die Dysenterie in Konstantinopel," in *Für die Türkei*, Jena: Gustav Fischer 1904, pp.182-315.

within the families of the vaccinated individuals. Therefore, during the variola epidemic in Istanbul and other regions of the Empire, the public abstained from getting vaccinated in fear that they could catch the disease.<sup>38</sup>

Thus, variola epidemics were still effective and fatal in the second half of the 19th, although not as destructive as before. Since the most practical and efficient way of protection was vaccination and revaccination, the Conseil d'Hygiene Publique decided that every individual living in the Empire should get vaccinated. However, this decision was not put into practice due to the prejudices of the public and opposition of the non-citizens living in the Empire. As cited by Zoeros Pasha, for commercial or other reasons, foreigners tended to oppose all preventive measures by local authorities. Though these precautions were exercised much more strictly in their own countries, they reacted to these measures within the Ottoman Empire and based their opposition on a capitulation or a trade agreement. Thus, the Conseil d'Hygiene Publique issued a milder act in 1885.<sup>39</sup> In the meantime, a private institute preparing variola vaccines was opened in Beyoğlu, Istanbul in 1880 and the first official vaccine house (*Telkibhane-i Sahane*) was opened in 1892. After this date, vaccination offices were expanded to all over the country. Yet, as evidenced by the advertisements, variola vaccines were also imported from Switzerland and France.

### *Leprosy*

Leprosy had been known to exist since ancient times. Patients were generally isolated from the society as this disease caused an awful smell. In Ottoman Turkey, too, lepers were sent out of town. The first leprosaria (*Miskinhane* = house for idle people) in Turkey was probably founded in the 15<sup>th</sup> century and the one in Üsküdar (a settlement on the Asian side of Istanbul) was opened in the 16<sup>th</sup> century.<sup>40</sup> According to Dr. Riegler, only Muslim patients were admitted here whereas members of non-Muslim communities (Jews, Armenians, Greeks) had to apply to their community hospitals. The patients in the Istanbul leprosaria were mostly from Kastamonu, a city in the Black Sea region, accompanied by their spouses and children. When an unmarried leper was brought into the leprosaria, he or she had to marry another leper here. Once admitted into the leprosaria, a patient could not

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38. J.B. Violi, "La Vaccination à Constantinople," *RMPH*, 1ère Année, Nr.4, 30 Avril 1888, pp. 59-60

39. A. Zoeros, "Questions d'hygiène publique," *RMPH*, 4ème Année, Nr.6, 30 Juin 1891, pp. 94-95

40. Zambaco, "Les Lépreux de Scutari près de Constantinople", *RMPH*, 3ème Année, Nr.8, 31 Août 1890, pp.122-128.

leave the place all his/her life since these people were considered to have been infected with a fatal contagious disease.

No cases of leprosy were encountered among the Europeans living in Istanbul. However, during the Crusades and the French expedition to Egypt, one could encounter leprosy among the Europeans living under the same daily conditions as the native people.<sup>41</sup> Zambaco Pasha pointed out that there were about 400 ambulant leprosy in Istanbul in 1890.<sup>42</sup> According to Dr. Riegler, the patient could more easily endure the severeness of his sickness in Eastern countries where resignation to God and fate were prominent. He could tolerate pain by soothing the distress of his soul. Those lepers in Levant were able to make friends or could console themselves with their children and thus, could more easily endure the pain. The lepers believed that this disease was bestowed upon them by God. Zambaco Pasha noted that these patients first refused to take their drugs, but readily accepted the use of drugs later on.

A number of studies were conducted on leprosy in 1860s. Dr. Mongéri published his study *Considérations sur la lèpre* in 1861-62, and two other studies were made on lepers in the islands of Samos and Creta. However, the most notable study on leprosy in the 19<sup>th</sup> century seems to be conducted by Zambaco Pasha.<sup>43</sup> He was called by his colleagues "the first leprologist of the Orient". From 1880 on, he had observed the ambulant lepers in Istanbul and presented the results of his observations to Académie de Médecine Paris in 1889. His printed observations about the Uskudar leprosoaria came out in Istanbul<sup>44</sup> and his book *Voyage chez les lépreux* was published in Paris in 1892. He actively participated in the debates carried out at the Societe Imperiale de Médecine. During these discourses he maintained the idea that leprosy was hereditary, which was opposing Von Düring Pasha who was a contagionist. Virchow's (1821-1902) speech about leprosy during his visit to Istanbul in April 1890 vivified the discussions.<sup>45</sup> Although the 1897 International Conference on Leprosy (Virchow being the chairman of the conference) largely accepted that leprosy was contagious, Zambaco Pasha, relying on his long term experiences, insisted that the disease was not infectious but rather hereditary.<sup>46</sup>

41. Riegler, "De La Lèpre des Grecs," *GMConst*, 1ère Année, Octobre 1849, pp.3-10.

42. Zambaco, "Les Lépreux de Scutari...", p.128.

43. For the biography of Zambaco Pasha (d. 1913) and the list of his publications see "La Mort du Dr. Zambaco Pacha", *RMPH*, 26ème Année, Nr.24, 15 Décembre 1913, pp.183-186.

44. Zambaco Pasha published his observations in a series of articles in *Revue Médico-Pharmaceutique* in 1889-90.

45. P. Apéry, "La Question de la Lèpre," *RMPH*, 3ème Année, Nr.4, 30 Avril 1890, pp. 70-71.

46. For the details of the discussions on leprosy see "Rapport sur les travaux de dermatologie présentés à la Société Impériale de Médecine pendant son premier cinquantenaire (1856-1906)," *Cinquantenaire de la Société Impériale de Médecine (1856-1906)*, Constantinople 1907, pp. 191-235.

### *Syphilis*

As it arrived in the Ottoman lands from Europe, syphilis was given the name *frengî* meaning European. It probably first appeared in Egypt at the beginning of the 16<sup>th</sup> century. The first Turkish work introducing the disease was compiled by the chief physician Hayatizade Mustafa Feyzi (d.1692) from the 16<sup>th</sup> century physician Giralomo Frocastro's (1483-1553) poem *Syphilis* and other European works. The Turkish treatise mentions various treatments, and among them the treatment with mercury. In the first half of the 19<sup>th</sup> century, physicians continued to prescribe mercurial medicines. Syphilis was widespread among soldiers travelling to Crimea via Istanbul during the Crimean War (1853-56). In 1854, Mehmed Hafiz, a professor at the Imperial School of Medicine, translated a book on syphilis from French. The disease was much more widespread in the second half of the 19<sup>th</sup> century than ever. In 1889, a special chair for Skin and Venereal Diseases was founded within the Imperial School of Medicine, and a special clinic was established for syphilitics. The fact that popular medical books dealing with the prevention and treatment of syphilis and gonorrhoea (blennorrhagy) were published in the second half of the 19<sup>th</sup> and at the beginning of the 20<sup>th</sup> century also suggests that syphilitic patients preferred to be treated outside the hospitals, either medicating themselves or consulting private physicians; they did not want their plight to be revealed.

### *Plague*

In the 18<sup>th</sup> century, plague first appeared in Galata (harbour of Istanbul) and Pera (a business district). From there it spread to other districts of Istanbul and finally all over Empire. Non-hygienic places such as the dungeons and inns of Galata prepared suitable grounds for, and were centers of, plague and other infectious diseases such as dysentery. For Daniel Panzac, the author of the *Plague in the Ottoman Empire, 1700-1850*, plague was not a common disease in Turkey in the second half of the 19<sup>th</sup> century. The last incidents were observed in 1838 and 1843 in Istanbul and Anatolia respectively. Panzac puzzled over the question of how the plague disappeared after having reigned for over 500 years. While quarantines established from 1830 onwards may have played a role, one may also mention the "generosity of Nature": the mutation of *Yersinia pestis* bacillus to the *Yersina pseudotuberculosis* and its diffusion among rodents (rats) immunized them against plague, and led to the gradual disappearance of the disease. However, in 1894 plague appeared at Yunnan and from there spread all over the world. Izmir and Istanbul, two harbour cities of the Ottoman Empire, were affected as well. However, due to stiff measures, the number of cases and the mortality rate were low. In Istanbul, 8

cases out of a total of 26 got deceased (1899),<sup>47</sup> while in Izmir only 9 of 22 patients died of plague (1900).<sup>48</sup> Plague appeared in Australia and Africa in 1899, in Portugal and Great Britain in 1900, in Marseille and South America in 1903, in Central Asia and China in 1910-11. An epidemic had emerged in Parisian suburbs in 1920 as well.

### *Behçet's Disease*

Before concluding, one must mention Behçet's disease (Behçet's syndrome, Trisymptom Behçet),<sup>49</sup> a multisystem disease commonly encountered in Mediterranean countries and the Far East. The disease was first defined in 1937 by the Turkish physician Dr. Hulusi Behçet (1889-1948)<sup>50</sup> and was originally called "Morbus Behçet" as proposed at the International Congress of Dermatology held in Geneva in 1947 by Professor Mischner, professor of dermatology at Zurich University, Faculty of Medicine.

The prevalence of Behçet's disease D is considerably high in Japan, China, Korea, Turkey, Iran, Tunisia and in Mediterranean and Middle Eastern countries, and low in Northern Europe and in the United States. The frequency of the disease seems to follow the ancient Silk Route. Its prevalence was 7-8.5 /100000 in Japan (survey of 1972) and 37/100000 Turkey Eastern Black Sea Region, 1988).

Seen in young males, it is characterized mainly by oral ulcers (seen almost in every patient), genital ulcers, skin manifestations and eye inflammation. Eye involvement, which causes the greatest morbidity in Behçet's disease, is encountered in half of the patients and is characterized by redness in the eye, bloomy vision and can lead to blindness. Musculoskeletal findings, one of the major manifestations of the disease, are observed in about 50% of the patients. The common involved joints are knees, ankles, wrists and elbows whereas manifestations in vessels, nervous and gastrointestinal systems are rare. The disease can be accompanied by stomach pain and diarrhea as well as bowel lesions.

The pathogenesis of Behçet's disease is not known. It was first thought to be viral. There is evidence that the disease is caused in patients having an appropriate

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47. 1317 [1899] *senesi zarfinda Dersaadette zuhur eden veba hastalığının istatistigi*, Matbaa-i Osmaniye, Istanbul 1318 (1900).

48. La peste à Smyrne en 1900: Rapport présenté au Conseil Supérieure de Santé par les Drs. Loutfi Bey et E.F.Mizzi (Constantinople 1900) in *RMPH*, 13e Année, Nr.21, 1 Novembre 1900, s.251.

background by inflammation related to humoral and cellular immunity disorders, but details are not clear. Suitable therapy is designated according to symptoms. Immuno-suppressive therapy is very important in young patients who tend to have a more severe course and eye disease. Oral aphtae and genital lesions can usually be controlled with proper hygiene and local steroids. Simple analgesics seems to be beneficial in musculoskeletal involvement.<sup>51</sup>

## Conclusion

The popular medical booklets on the prevention and various treatments for diseases published in Istanbul from the last decade of the 19<sup>th</sup> century may give hints about the diseases common in the beginning of 20<sup>th</sup> century Turkey. The largest number of books were on venereal diseases (syphilis and gonorrhoea), cholera, tuberculosis, malaria, plague whereas books on other contagious diseases (smallpox, measles, scarlet fever, typhoid fever, diphtheria, rabies and trachoma) are not numerous (no more than five publications per disease). Books on diseases such as rheumatism, debility, anemia, insomnia are fairly rare. However, these diseases appear quite frequently in drug advertisements (tonics and anti-anemics were classified in the top second group as mentioned above) and we may argue that rheumatism and anemia were rather common in the second half of the 19<sup>th</sup> century. The sections of medical and pharmaceutical journals introducing new therapies and drugs are mainly devoted to the treatment of tuberculosis, cholera, anemia, rheumatismes, typhoid fever, diarrheas and syphilis. Anemia is still quite common in Turkey due to the nutrition habits and high consumption of tea which hinders the absorption of iron.

Reports on the medical constitution of Istanbul for the second half of the 19<sup>th</sup> century published in the *Gazette Médicale d'Orient* mention rheumatism to be very frequent in the winter: "Le rhumatisme s'est montré pendant cette année, sous toutes ses formes, la constitution médicale de l'année 1860-61 a été éminemment rhumatismale..."<sup>52</sup> Pardo, stated that the presence of rheumatic diseases was associ-

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49. Türkan Saylan, Cem Mat, Izzet Fresko, Melike Melikoğlu, "Behçet's Disease in the Middle East," *Clinics in Dermatology*, Vol.17(1999), pp.209-223.

50. Hulusi Behcet, "Über rezidivierende Aphthöse durch ein Virus verursachte Geschwüre am Mund, am Auge und an der Genitalien," *Dermatologische Wochenschrift* Vol.105(1937), pp.1152-1163 (57), "Considérations sur les lésions aphteuses de la bouche et des parties genitales, ainsi que les manifestations oculaires d'origine probablement virutique et observations concernant leur foyer d'infection," *Bull Soc Fran Derm Syph*, Vol.45 (1938), pp. 420-33.

51. For recent publications and research on Behçet's disease in Turkey see <members.xoom.com/ytuzun/behcet.htm>

52. Pardo, "Bulletin: constitution médicale de Constantinople pendant l'hiver 1860-61," *GMO*, 5<sup>ème</sup> Année, Nr.9, Décembre 1861, pp.129-132.

ated with the cold and humid atmospheric conditions of Istanbul, the sudden variations in the temperature and the predominance of northern and north-western winds. He observed that the most rational drugs proved inefficient while drugs used for mitigating rheumatic pains and the presence of good weather proved successful.

For Dr. Marroin, the medical year in Istanbul can be divided into two distinct seasons, the cold season and the hot season, and he allows no place for intermediary seasons. He points out that rheumatisms and respiratory diseases were widespread in the cold season: "En mars et en avril je n'ai rencontré â la clinique que des rhumatismes, les angines, les pleuresies, les pneumonies observes durant l'hiver."<sup>53</sup> Other physicians also mentioned rheumatisms as the most common diseases of the autumn-winter season and one of the most resistant disease to therapeutics.<sup>54</sup>

Rheumatism and anemia seems to be among the common diseases in the present-day Turkey. In 1999, antibiotics (20.8 %), analgesics (3.3 %) and drugs for rheumatoid diseases (9.9 %) were the best selling drugs. If one considers that a number of analgesics were probably used to relieve rheumatoid pains, the number of rheumatics becomes fairly high. The vitamins, minerals and anti-anemics (7.4 %) surpass the digestive system drugs pointing out that anemia cases are rather numerous.<sup>55</sup>

It is obvious from the present paper that a great diversity of diseases were prevalent in the Ottoman Turkey-especially in Istanbul-in the second half of the 19<sup>th</sup> century. In a sense, the geographical position, the climatic variations of the city and its cosmopolitan character due to the coexistence of people from various regions, nations, races, religions with different customs were in a sense influential in the formation of this great diversity. Future research focusing the history of diseases in Ottoman Turkey will certainly help us learn more about new aspects of Turkish medical history.

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53. A. Marroin, "Constitution médicale du printemps de l'année 1868," *GMO*, 13<sup>ème</sup> Année, Nr.4, Juillet 1861, pp.49-50.

54. "Bulletin," *GMO*, 10<sup>e</sup> Année, Février 1867, Nr.11, pp.161-162; Léon, "Bulletin," *GMO*, 12<sup>e</sup> Année, Avril 1868, Nr.1, pp.1-3.

55. *Rapor* (İlaç ve Kimya Endüstrisi İşverenler Sendikası Yayını), December 1999, Year 11, Nr. 106, p.5.