MILESTONES PHYSICIANS AND THEIR CONTRIBUTIONS IN TURKISH ORTHOPEDICS AND TRAUMATOLOGY

ELIF ATICI¹, TEOMAN ATICI²

Abstract: Orthopaedics, dealing with the treatment of the irregularities in the locomotor system and traumatology, dealing with the treatment of injuries after trauma have been serving as independent treatments in the surgery clinics in Turkey as in the whole world. The independent science field becoming of Orthopaedics and Traumatology in Turkey has been released by the efforts and contribution of many respected physicians. In this presentation the efforts of the physicians Orhan Abdi Kurtaran, Akif Sakir Sakar, Burhaneddin Toker, Dervis Manizade and Ridvan Ege who have contributed in the development of Orthopaedics and Traumatology in Turkey is going to be mentioned.

Key words: Orthopaedics and Traumatology, History of Medicine, Turkey.

Like in whole world, in Turkey as well the proceeding of surgery into a modern appearance has been in the 19th century. The later separation of orthopaedics and traumatology from general surgery like urology, gynaecology and alike fields and its becoming as an independent science field has been in different dates and ways in every country. Orthopaedics, dealing with the treatment of the irregularities in the locomotor system and traumatology, dealing with the treatment of injuries after trauma have been serving as independent treatments in the surgery clinics until recent years [3].

The independent science field becoming of Orthopaedics and Traumatology in Turkey has been realized by the efforts and contribution of many respected physicians. In this essay, the efforts of the physicians Orhan Abdi Kurtaran, Akif Sakir Sakar, Burhaneddin Toker, Dervis Manizade and Ridvan Ege who have contributed in the development of Orthopedics and Traumatology in Turkey is going to be mentioned.

Dr. Orhan Abdi Kurtaran (1877-1948)

After graduating from Military Medicine School in 1899, he worked as a surgery assistant with Prof. Reider and Dycke Pasha in Gulhane Hospital [1]. Dr. Orhan Abdi was sent to University of Bonn by Sultan Abdulhamid in 1900. He got training orthopaedics from Dr. Max Shede and learned the production of orthopaedics equipments from Eschaum. Later, he became an assistant of Prof. Hoff in University of Wurzburg (Baviera) and Prof. Sick in University of Eppendorff (Hamburg) [3, 12].

In 1905, by the order of the Padishah, he returned to Istanbul and began to work as a trainer at Gulhane Hospital, “Orthopaedics and War Surgery” [13].

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So, involvement of orthopaedics in medical training began in 1905 with Dr. Orhan Abdi. At the same year, he used ether in the operations and contributed for developing anaesthesia. With the foundation of Medical Faculty in 1909 it was seen that for the first time orthopaedics branch has become semi private and the name of the lesson was changed to “Orthopaedics and Big Surgery Operations” [13]. During those days there were three surgery clinics. The third one’s name was “Surgery and Orthopaedics” and the chairman of it was Dr. Orhan Abdi. However, when he became as the chairman of the second surgery clinic, the name orthopaedics was removed [3].

**Akif Şakir Şakar (1888-1961)**

After graduating from Military Medicine School in 1910, he underwent a period of training in Gulhane Military Practice Hospital, surgery clinic. At the end of 1911 he was inducted as a surgeon to Van Military Hospital. In 1912 he worked as an assistant in Vienna University with Prof. Eiselberg in surgery clinic and with Dr. Breitner in emergency service for a year. In the I. World War he worked as a physician in Jerusalem, Syria and Palestine. He was captured in Damascus. In 1919 he returned to Istanbul, in 1921 he graduated as a surgeon and began to work with Dr. Mouchet who was working with orthopaedics patients and giving lectures on “Paediatric Surgery and Orthopaedics”. He was appointed as an interpreter of Dr. Mouchet by Dr. Akil Muhtar Ozden, the Dean of that time. After becoming an associate professor in 1923, he began to give lectures between the years 1923-1925. In 1925, after Dr. Mouchet changed to teach in “Surgery Operation and Techniques” he became the head of Paediatric Surgery and Orthopaedics Department, which did not have a clinic [6]. In 1927-1929, he worked in Hamburg University surgery clinic with Dr. Sudeck on bone and joint surgery. Seeing that fractures treatment and orthopaedics was not sufficient in Turkey, he showed effort to establish a modern orthopaedics clinic [13].
Dr. Akif Sakir had three goals; the establishment of the clinic, paediatric surgery and orthopaedics becoming a specialization branch and separating paediatrics surgery from orthopaedics. In 1930, the first Paediatric Surgery and Orthopaedics Clinic, which contained 30 beds was founded by him [3]. In 1931, he became professor. For the first time in Turkey, he used visual materials (photographs and operation images of orthopaedics patients) in education, also he always demonstrated patients related with lesson [13]. The first book of the clinic was published by him in 1936 with the title “Paediatric Surgery and Orthopaedics”. With the aim of acceptance Paediatric Surgery and Orthopaedics as a specialization branch, he established “Turkish Orthopaedics and Traumatology Association” in 1939. The department took its place among 22 specialization branches in the date of 1947. In 1955, with the special efforts of Dr. Akif Sakir Sakar, the clinic moved to the new building that was formed of 5 floors and 100 beds. So, Dr. Sakar has founded the modern orthopaedics clinic that was his ideal [6, 11, 13].

He had a book with two volumes titled as “Lectures on Paediatric Surgery and Orthopaedics Clinic”, 100 papers published in Turkish medical journals and 40 papers published in German, French and Swiss medical journals [6].

Turkish Orthopaedics and Traumatology Association has been given scientific prize in the name of Akif Sakir Sakar since 1995. Also the same association arranged “28th Akif Sakir Sakar Days” this year.

**Dr. Burhaneddin Toker (1890-1951)**

He began his medical education in Damascus Medical Faculty and completed in Istanbul in 1910. He went to Germany in 1913 to make his residency in surgery and worked together with the popular surgeons of that period, Brauer and Küttner for 7 years in Berlin and Hamburg [2]. During that period fractures-deformations and injuries were cured in the general surgery. He specialized in modern bone surgery. After returning to Turkey, he started to work as an operator and the clinical director of the surgery department in Cerrahpasha Hospital. Surgery treatment opportunities were insufficient. Fracture-deformation treatment was mostly done by the bonesetters.

Also most of the physicians were not interested in fracture treatment and plaster structure. He was aware of the lacking points in this field, so he dealt with especially with traumatology [3].

In order to increase the number of patients, he made friendships with the policemen who take injured people to the hospital, and assured that all injured around were taken to Cerrahpasha. In a short time Cerrahpasha Hospital started to work as an accident surgery centre. He attained a mobile roentgen device and by
doing fractures reposition under radioscopy, he released the first conservative modern fracture treatment in Turkey.

He brought Braun device schema and measures, which was used in fractures from Germany and had the smith done it.

The first surgery journal “Journal of Turkish Surgery” was published by him in 1927.

Also, he took the lead in the foundation of “Turkish Surgical Association” in 1929 with the aim of improvement in the scientific worlds [8, 9, 11].

Subsequent to the "University Reform" in 1933, the world famous German surgeon Ord. Prof. Dr. Rudolf Nissen has been assigned as the "Director of the 1st Surgery Clinic and the clinic was moved from Haydarpasha to Cerrahpasha. Dr. Burhaneddin Toker was first assigned to the staff of Dr. Nissen as an associate professor; five months later he became professor. Nissen went to U.S.A. because of his sickness and Dr. Toker became the director by proxy in 1941 and subsequent to definitive departure of Nissen, the new director of 1st Surgery Clinic at Medical School [7, 8]. Dr. Toker opened surgery building in 1943, the plan of which was set and started to build by Nissen in 1939. So, the clinic took a modern appearance [8]. He had the degree of "Ordinaries Professor" in 1943 and leaded cardiovascular surgery, neurosurgery and anaesthesia departments in addition to the formation of new traumatology [7].

He was also the first implemener of some medical applications: first systematically blood transformation, first stomach resection operation (1928), implementation of first Smith-Petersen nail (1941), first book on fracture and dislocation [2, 9, 11]. He had over 150 papers and 3 books: Surgical Treatment of Lung Tuberculosis, Fracture and Dislocations, Lung Apses.

**Dr. Derviş Manizade (1902-2003)**

After graduating from Vienna Medical Faculty in 1932 he began to work in the Traumatology Service of the II. Surgery Clinic in the same place and was preparing for associate professorship. Prof. Nissen decided Dr. Manizade for the assistantship would be appropriate. In 1937 he started to work as an assistant of Nissen and Toker in Istanbul. He was established archive system for the first time in the clinic (1938). He prepared patient follow forms and made sure that these forms were filled completely and regularly for each patient.

During those days fracture-deformation treatment, which was done within the general surgery, began to discuss that it should be the subject of orthopedics branch. After the death of Dr. Toker in 1951, Cerrahpasha Surgery Clinic divided into two with the directorship Dr. Kazım Ismail Gurkan and Dr. Fahri Arel. In 1960, Dr. Manizade was appointed to the directorship of the third clinic and for the first time he gathered the traumatologic cases in one place.
Between the years 1962-1963 by combining surgery clinics, one clinic with six sections was established. One of these sections was Traumatology Service with 30 beds only for bone-joint injuries and orthopaedics cases. Dr. Manizade, who assured its establishment, was appointed as a director of this section [10].

First intramedullar nail implementation in tibia fractures was performed by him in 1950 [9, 11]. Turkish Orthopaedics and Traumatology Association has been given scientific prize in the name of Dervis Manizade since 2001. Also the same association is going to arrange “8th Dervis Manizade Orthopaedics Days” on December in this year.

**Dr. Rıdvan Ege (1925- )**

After graduating from Istanbul Medical Faculty in 1948, he underwent a period of training in Gulhane Military Medical Academy, surgery clinic. In 1949, he was inducted to Erzincan and then Diyarbakır. In 1952 he worked as an assistant in Gulhane with Prof. Dr. Recai Erguler in surgery clinic. Although traumatology was very important for military, there was no specialization in Turkey. So, he went to U.S.A (Colombia University) in order to take orthopaedics and traumatology training in 1956. After returning to Turkey, he worked in general Surgery Clinic of Gulhane since Orthopaedics was not established yet [4]. He believed that skeleton traumatology was not the field of general Surgery and should be the specialist of orthopaedics. His aim was including Trauma into Orthopedics and separate Paediatric Surgery. To reach this aim first he completed 262 orthopaedic operations in a year and published these in Turkish and English. Then he visited three Medical Faculties in Turkey that dealt with orthopaedics and four Bone and Joint Illness Hospitals to start a communication with colleagues. After presenting his works Professors Committee accepted to establish a clinic and also accepted Dr. Ege’s suggestion for naming the clinic as “Orthopaedics and Traumatology”. So, the separation of orthopaedics from paediatric surgery and traumatology from general surgery and joining them as an independent clinic was realized first in Gulhane Military Medical Academy in 1961 by him [5]. Also after working with Dr. Carroll (New York Colombia University) and with Dr. Boyes (Los Angeles S California University) on hand surgery, he established first hand Surgery Clinic in Turkey.

Also he established Mediterranean and Middle East Orthopaedics and Traumatology Association (1960), Turkish Rehabilitation of Disabled Association (1960), Turkish Orthopaedics and Traumatology Union Association (1966), Modern Surgical Training and Research Institute (1967).
Association (1970), Turkish Foundation of Traffic Accidents (1972), Turkish Hand and Upper Extremity Surgery Association (1977). He organized many national and international congresses. He has 111 books, 451 papers. Today, he continues his works in Ufuk University (Ankara), which was established in 1999 by Turkish Foundation of Traffic Accidents. He is the president of board of trustee [4].

Table 1. Contribution of physicians to Turkish Orthopaedics and Traumatology

<table>
<thead>
<tr>
<th>Dr. Orhan Abdi Kurtaran</th>
<th>Dr. Burhaneddin Toker</th>
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<tbody>
<tr>
<td>• First lesson in orthopaedics:</td>
<td>• Establish the first modern orthopaedics clinic (1955)</td>
</tr>
<tr>
<td>“Orthopaedics and War Surgery” (Gulhane Hospital-1905)</td>
<td></td>
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<tr>
<td>“Orthopaedics and Big Surgery Operations” (Medical Faculty-1909)</td>
<td></td>
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<tr>
<td>Used ether in the operations (1905)</td>
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<tr>
<td>• First Clinic: “Surgery and Orthopaedics” (1909)</td>
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<tr>
<th>Dr. Akif Sakir Sakar</th>
<th>Dr. Dervis Manizade</th>
</tr>
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<tbody>
<tr>
<td>• Establish modern orthopaedics in Turkey</td>
<td>• Established archive system for the first time in the clinic (1938)</td>
</tr>
<tr>
<td>• Use visual materials in education for the first time</td>
<td>• Prepared patient follow forms</td>
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<tr>
<td>• Establish Paediatric Surgery and Orthopaedics Clinic (1930)</td>
<td>• First intramedullar nail implementation in tibia fractures (1950)</td>
</tr>
<tr>
<td>• Publish first book: Paediatric Surgery and Orthopaedics” (1936)</td>
<td>• Gathered the traumatologic cases in one place (1960)</td>
</tr>
<tr>
<td>• Establish Turkish Orthopaedics and Traumatology Association (1939)</td>
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Established Traumatology Service with 30 beds only for bone-joint injuries and orthopaedics cases (1962-1963)

- Established the first “Orthopaedics and Traumatology” clinic (1961)
  - (separation of orthopaedics from paediatric surgery and traumatology from general surgery and joining them as an independent clinic was realized by him)

- Dr. Ridvan Ege
- Established Mediterranean and Middle East Orthopaedics and Traumatology Association (1960)
- Turkish Rehabilitation of Disabled Association (1960)
- Turkish Orthopaedics and Traumatology Union Association (1966)
- Modern Surgical Training and Research Association (1970)
- Turkish Foundation of Traffic Accidents (1972)
- Turkish Hand and Upper Extremity Surgery Association (1977)

**Conclusion**

Orthopaedics began to its journey in Turkey in 1905 with Dr. Orhan Abdi Kurtaran by getting its place in the medicine training and got its first clinic with the intensive efforts of Dr. Akif Sakir Sakar in 1930. Although it was accepted as a separate branch in 1947, until 1960 the clinic’s name was Paediatric Surgery and Orthopaedics. The development in Traumatology began with Dr. Burhaneddin Toker and as an effort of Dr. Dervis Manizade first Traumatology Service was established within General Surgery. With the efforts of Dr. Ridvan Ege Orthopaedics was separated from Paediatric Surgery and Traumatology was separated from General Surgery in 1961 and took the name Orthopaedics and Traumatology.

**References**


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