There is not much data available on Turkish medicine before the acceptance of the Islamic religion. Medical history goes back to the eighth century, the time of the Uygurs and Orhun Turks. During this period surgeons from neighboring countries had an influence on Turkish medicine and some written data were established. Physicians were educated in hospitals in a “master-knight” relation. When lay medical schools were opened in Europe, Turks had founded the State of Seltschucks and started to build lay hospitals and schools. One of these examples is Nureddin Zengi Hospital in Damascus, Syria, built in 1174 and still visited today. The Gevher Nesibe Medical School and Hospital in Kayseri, Turkey, built in 1206, can also be visited today as a museum of medical history.

During the Ottoman period in the 15th century, the leading medical personality was Sharafeddin Sabuncuoglu, of Amasya, Turkey. He published the first Turkish illustrated surgical book in 1465 with examples of operative procedures and instruments shown as miniatures (Figure 1). Surgeons, who were responsible for wound care, tooth extractions, taking blood, and circumcision, historically were less well regarded by the public compared with medical doctors, as was the case in Europe. The first license examination for medicine in Turkey was established in 1704.

Modern medicine started in March 14, 1827, with the opening of the Military Medical School, Istanbul, which had surgical and medical sections. In 1831, the surgical section was under the direction of the French surgeon Dr Sade de Calere. In 1838, both sections were under the direction of Austrian professor Dr K. A. Bernard. In 1869, a civil medical school that educated students in Turkish was opened. For a long period, particularly during wartime, the Military Medical School served as a teaching hospital for surgery. The school was at that time directed by Drs Rieder and Dayke from Germany.

In 1909, Professor Cemil Topuzlu succeeded in the reunion of civil and military medical schools and became the leader of modern surgery in Turkey. In 1923, Mustapha Kemal Ataturk, founder of the Turkish Republic, started the modernization of the university clinics. In 1933, several German and Austrian professors escaping from Nazis in Europe immigrated to Turkey. Among those, Dr Niessen became the director of the surgical university clinic in Istanbul and Professor Melchior, in Ankara, both until 1954.

EDUCATION TODAY

After graduation, high school students have to take a central examination to enter medical schools. Undergraduate medical training lasts for 6 years and for the first 2 years students study anatomy, physiology, pathology, microbiology, biochemistry, and pharmacology, and for the next 3 years they study clinical subjects.

During the final year, they become rotating interns in clinical departments of surgery, internal medicine, pediatrics, gynecology-obstetrics, and family planning centers.

After completion of undergraduate training, graduates become doctors of medicine and those who wish to take a post for training in surgery or any other spe-

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cial field have to take another central examination in both medicine and foreign languages. The duration of surgical training in teaching hospitals or universities is 5 years. During this period residents are also on rotation in the departments of gynecology, urology, orthopedic surgery, anesthesiology, cardiovascular surgery, and pathology. During the residency program they have ward responsibilities, work as second and first residents in the operating rooms, and may operate under the supervision of an attending surgeon. At the end of the training program they write a thesis and sit for both a theoretical and practical examination in front of a jury. Successful candidates become licensed by the Ministry of Health and can practice surgery independently. A surgeon who wants to continue with an academic career works as an attending surgeon for at least 4 years in a university clinic and may become an associate professor based on publications, a theoretical and practical examination by a jury, and a foreign language examination.

SURGICAL CLINICS

Today there are more than 80 institutions that have surgical residency programs; about half of them are university clinics. In Istanbul, which is the biggest and most populated town of Turkey, there are 3 university clinics and 3 national insurance hospitals and state hospitals where surgical residencies are available. In total, there are more than 3300 surgeons in Turkey, most of them in urban areas, and only a minority work as independent surgeons.

Cardiovascular, orthopedic, urologic, and pediatric surgery have their own residency programs and are independent departments. Within general surgery there are no established subspecialty programs. There are surgeons or clinics with special interests and backgrounds in special fields, particularly in university clinics, where residents may gain experience with modern techniques and concepts.4

Surgeons with special interest in different fields are establishing working groups or societies. Thus, in addition to the National Surgical Society, there are national societies of colorectal surgery, endocrine surgery, breast diseases, and others, organizing their own workshops and meetings, which are well attended and have international participation.

RESEARCH

Surgical residents write a thesis, in most cases on basic science and experimental surgery, under the supervision of a professor before they are allowed to enter the board examination. The attending surgeons also are expected to have published basic research papers before they apply for associate professorship. The funding of these studies depends on the contributions of the Turkish National Foundation for Scientific Research and university centers for experimental medicine.

CONTINUING EDUCATION PROGRAMS

The attending surgeons and house surgeons are expected to participate in postgraduate education programs of the university clinics and state and national insurance hospitals. The national societies also cover a substantial part of the postgraduate education by organizing courses and workshops.

In summary, Turkish surgery has a long history, has made great progress in the last century, and today is capable of performing procedures using the newest techniques and according to modern concepts. The distribution of the surgical craft may not be uniform and there are attempts to promote surgeons to provide modern surgical service in rural areas. The standards in university clinics are high and are comparable to modern clinics in Europe and the United States. Special services such as burn units, transplantation units, and microsurgical units are available throughout the country under the direction of world-recognized Turkish surgeons.

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