Personal view

ROMANIAN SURGICAL SCHOOLS AND THEIR MASTERS

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Abstract

The presentation is reviewing historically the Romanian schools of surgery.

„The concept o surgical school gathers the tutorial institution and the team of students” and becoming surgeons which are studying, experimenting and performing surgery under the supervision of an outstanding surgeon, with prominent character, teaching skills and exemplary morality, being able to guide, to support and objectively evaluate each of them.

The surgical school creators and theirs outstanding students are listed, some of them continuing the training in the same clinic or becoming creators of other schools.

Article follows the chronology of Romanian surgery, highlighting the contribution of various schools and surgeons to the development of surgical disciplines in Romania.

The merits in scientific innovations and imagining new surgical approaches and procedures are taken into account, national and international contribution to promoting the national values and importance of students trained by each of the surgical personalities, beginning with Kretulescu N., A. Fatu, N. Turnescu and continuing with Th. Ionescu, G. Asachi, C.D. Severeanu N. Hortolomei and T. Burghule, together with other school formers.

Keywords: medicine history, Romanian medical schools, tutoring masters of surgery, „Colțea” medical school; university chairman

Rezumat

Articolul face o prezentare istorică a școlilor chirurgicale românești.

Conceptul de “școală în chirurgie” cuprinde instituția formatoare și echipă de elevi” și chirurgi în devenire care studiază, experimentează și operează sub îndrumarea unui chirurg eminent, cu personalitate marcată, aptitudini didactice și morală exemplară, care îi ghidează, îi susține și îi apreciază obiectiv. Sunt enumerate creatorii de școală chirurgicală și elevii eminenți ai acestora, parte din ei continuând

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The early beginning of surgical procedures on the territory of our country starts in the late Neolithic period, proved by the trepanned skulls, consolidated fractures and various primitive surgical instruments discovered by archaeological diggings on several sites.

Middle ages introduced the surgical practice of “surgeon barbers” and continued empirical methods by “feldchers” (sub-surgeons) for some centuries.

Romanian surgery started its development formally at the end of 17th century with the arrival of doctors graduating foreign medical schools and with the establishment of the first hospital – Coltea (in 1704) in Bucharest and St. Spiridon (in 1731) in Iassy, being true “Alma Mater” of Romanian medicine.

First attempts to organize medical schools in the Romanian Principalities took place in the first half of 19th century when the “school of minor Surgery” was founded in 1842 in Colțea hospital by Nicolae Kretzulescu (1812-1890), the first Romanian graduated doctor in medicine in Paris followed by the foundation of “Gregorian Institute” and of the “School for midwives” in 1852 in Iassy by Anastase Fatu (1816-1880).

The scientific bases for the medical university formation in Romania were set by Carol Davila (1828-1890), at the command of the prince Barbu Știrbei, in order to organize the military sanitary service. Davila founded the National School of Medicine and Pharmacy in 1857 in Bucharest, which became later, in 1869 the Faculty of Medicine. Its first dean was Nicolae Turnescu (1819-1890).

In Iassy, the faculty of Medicine was founded in 1879, the first dean being Leon Scully (1853-1912).

Only after that one can speak about the first medical schools in Romania.

The concept of “surgical schools” aims to achieve the complete and complex formation of surgeons based on the available knowledge. This needs a scholar institution, a master and a bunch of scholars to be able to promote school’s values:
the formative institution is the hospital clinic and the tutorial university;
the team of scholars are the surgeons working in the clinic under the supervision of the master surgeon;
the master is usually a professor with prominent personality and teaching skills, model of morality and behavior, able to guide, to support, to evaluate and classify, as objective as possible, his scholars regarding their abilities and qualities. He usually is sustained by the older and experienced surgeons in the team.

In order to create a medical school, it shows to be unnecessary to be part of the university staff.

The complex formation includes the knowledge about surgical techniques, various procedures and about proper choices, the clinical case discussion and the relationship with the patient, demonstration on corpse dissections and animal experiments, about dressing scientific papers and works, presentations and preparations of national and international symposiums and meetings.

Among the scholars, some became themselves formative masters continuing the work of their teachers and contributing to develop furthermore the specialty.

General Surgery

The first Romanian surgical schools was founded in Coltea hospital, under the leading of professor Constantin Dimitrescu-Severeanu (1840-1930), himself being a peasant son who obtained after graduating the National School of Medicine a scholarship in Paris from Carol Davila.

Coming back, he was designated professor of Topographical Anatomy and Operative Medicine in the University and prof of surgery in Coltea Hospital (in 1870), where he continued to work till 1911.

Severeanu was an enthusiastic and innovative researcher as well as formative master. During his long career he founded the first surgical instrument manufacturing workshop, built up the first Roentgen device in the country and founded the first laboratory for radiology and radiotherapy (lead by his pupil – Dimitrie Gerota). He also introduced several principles and surgical techniques such phenic acid disinfection, cocaine spinal anesthesia, layered abdominal wall suture (1873), decapitation of femoral head in irreductible luxations (1877), the trombendartherectomy, a personal procedure for “rabbit-lip” (1897), the procedure for maxillary resection and others.

Several further masters of medical schools, such as Petre Herescu, Leonte Atanasievici, Ion (Iancu) Jianu, Victor Gomoiu, Grigore Romniceanu, Nicolae Racoviceanu-Pitesti, were some of his pupils.

In the same period, a second surgical school appears, joining Coltea hospital with Severeanu’s school. This was guided by prof. Thoma Ionescu (1860-1926), graduated doctor in medicine in Paris, where he wrote the chapter of anatomy of digestive tract in Poirier & Charpy’s textbook of Anatomy.

Returning in Romania in 1885, he was designated professor of the institute for topographical anatomy and operative surgery of the Carol Davila University and
professor of surgery in Coltea. He imagined and promoted several surgical procedures, some of them national or international priorities such as: mandibular resection, first craniotomies, rectal amputation with obturatory lymph nodes removal (Moskow 1897), cervical sympathectomy, procedures of gastric resection for benign tumors (1901), enlarged total hysterectomy with extensive pelvic lymphatic nodes removal (reported in Rome, in 1902), spinal anesthesia by stovaine (1908). For the last procedure he was asked to demonstrate in several European countries as well as in USA. In 1897 he founded and was the first editor for the magazine “Chirurgia” and one year later founded the Bucharest Surgical Society, transformed later in Romanian Surgical Society. His school prepared scholars like Ernest Juvara, Amza Jianu, Dimitrie Gerota, Victor Gomoiu, Ion Balacescu, Constantin Daniel, Traian Nasta, Iacob Iacobovici, Alexandru Cosacescu and others.

In Iassy, in the same period, the first professor of surgery was Ludwig Russ sr. (1816-1888) graduated doctor in Halle. He is setting bases for research, is introducing the ether-anesthesia. His pupils were Leon Logothely Scully (1853-1912) and Maria Trancu-Rainer.

Leon Scully graduated university of medicine Montpellier and became doctor in medicine in Paris. He was designated professor of surgery and performed abdominal, thoracic, genital and cranial surgery. His pupils were Ion Tanasescu, Paul Anghel and Nicolae Hortolomei.

In Transylvania, under Austro-Hungarian Empire, the University of Medicine had in 1773 twenty one Romanian students. Here, surgery was taught by L. Brand and Ioan Molnar-Piuariu.

**Military Surgery**

Military surgery is developing as well as general surgery in civil hospitals. Organizing the Army’s Health Service, Carol Davila, founded the Central Military Hospital and the Military Medical Institute in Bucharest.

Athanase Demosthen (1846-1925) was the first military surgeon, graduated doctor in Medicine in Montpellier. He participates at the independence war in 1877-1878 and becomes general and general inspector of the Army’s Health Service. In 1881 occupies by contest the chair of topographical Anatomy and operative surgery in the University, being also the chief of the surgical service in the Military Hospital. His scholars were Mihail Butoianu, Paul Anghel and Ion Gilorteau, themselves having pupils as Ion Atanasiu, Petre Costescu, Gheorghe Petulian, Eugen Mares and others.

At the beginning, general surgery consisted in all surgical fields procedures, gathering abdominal, thoracic, orthopedic, cranio-vertebral, gynecologic, pediatric, surgery as well as ENT procedures. This situation started to change with the second generation, which begins to preoccupy on more specialized surgery, as it was practised in the Occidental countries.

The second generation of masters of surgery included several surgeons which started their formation in a school and continued it in other school or under guidance of the pupils of first master:
Traian Nasta (1882-1958), pupil of Thoma Ionescu, professor of topological anatomy and operative surgery on the University (since 1932) and professor on surgery at Polizu and then Floreasca hospitals (1947). He performed especially rectal surgery as well thoraco-pulmonary and vascular surgery. His school had pupils as Gheorghe Chipail, Florian Mandache, Ion Turai, Dan Dumitrescu, Pavel Simici, Horia Fleschin and Marin Popescu-Urluieni.

Ernest Juvara (1870-1933), graduated as doctor in Medicine in Paris were he published valuable papers. He was resident in Th. Ionescu’s school and at his master’s suggestion is designated chairman of Surgery in Iassy, continuing L. Scully’s work and guidance of I. Tanasescu, P. Anghel and N. Hortolomei.

In 1912 is transferred in Bucharest (in Filantropia, than Brancovenesc hospital) were he performs hard surgical procedures, especially orthopedical surgery.

He innovated several devices and techniques such as free graft of femur or tibia in tumors with mieloplaxises. His Bucharest pupils were Eugen Cristidi, Ion Bejan, Ion Fagarasanu, Victor Climescu, Victor Dimitriu (Braila), and other more than 30 specialists in surgery and ortopaedics.

Amza Jianu (1881-1962), was also one of the Th.Ionescu’s pupils. As his master suggested, he is designated to follow E. Juvara as chairman of surgery in Iassy. In 1930 is transferred in Bucharest as chief of service of urinary diseases in Coltea hospital, were he leads also the anti-cancer center. He is transferred in 1934 at Filantropia hospital where he elaborates some esophageal surgical procedures, procedures for muscular grafting and procedures in the treatment of cerebral or medullar tumors.

His scholars were: Dan Teodorescu, Theodor Firica, Dan Gavriliu, Valeriu Popescu, Dumitru Burlui and others.

Nicolaie Hortolomei (1885-1961) was teaching assistant of professors E. Juvara and A. Jianu. In Iassy he was associated professor in Anatomy (1903) and surgery (from 1930), after the transfer of A. Jianu. Under his guidance were formed Vladimir Butureanu, Gheorghe Chipail, Theodor Burghele, Oscar Franke, Eugen Aburel and others.

In 1933 Hortolomei is transferred to Cotelina and after that to Coltea hospital were he refunded the experimental laboratory for surgery. He studied here the physiology of urinary dynamics, preserved skin-grafts, portal-caval anastomosis, cardiac and vascular surgical procedures and general ether-anesthesia by oral-tracheal intubation. He is considered the founder of physiological surgery of the modern urological surgery, cardiovascular surgery and general anesthesia, promoter in our country. In Coltea Clinic his pupils were Thodor Burghele, Gheorghe Olanesuc, Ion Juvara, Dan Setlacec, Dan Gerota, Tiberiu Ghitescu, Ion Busu, Mihai Stancescu and lots of residents.

Ion Tănăsescu (1875-1954) is graduating Iassy University, is specializing in Wien, Berlin and Paris and returns as resident to Leon Scully. In 1913 is designated professor to the second surgical clinic and he leads it till 1940, tightening his name to the school of Iassy. He was a great clinician, and had important contribution to the development of gastro-intestinal, gynecological and urological surgery. He had an outstanding contribution in organizing medical teaching (as dean of university) and continued the school of his forerunners, offering guidance to N. Hortolomei, VI Butureanu and G. Chipail.
In Cluj, the first Romanian school of surgery appeared after the Great War and Romania’s unification.

**Iacob Iacobovici** (1879-1959), former resident of Thoma Ionescu is designated professor to the first surgical clinic (1919), where works 14 years and organizes medical teaching in Cluj as dean and rector of the University.

He is approaching a large surgical horizon of procedures, is dressing textbooks and monographies. Out of his school raised Alexandru Pop, Eugen Teposu, Alexandru Radulescu, Liviu Câmpian, Ion Muresan, Ion Danicico, Aurel Nana, Petru Bruda, Titus Rusu and more than 20 residents.

In 1933 is transferred in Bucharest, in Brancovenesc hospital were works till 1949 and raises Ion Chiricăță, Ion Porumbanu, Florian Mandache, Ion Țurai, Dumitru Vereanu, Dumitru Burlui, Pavel Simici, Victor Prodescu, Ion Teodorescu-Exarciu and more than 30 residents.

The 3rd generation of surgeons spreads due to new hospitals and university clinics, among its prominent representatives being:

**Theodor Burghele** (1905-1977), pupil of N. Hortolomei, graduated in Wien and Paris. He becomes professor of surgery and urology in Panduri hospital (1946). He builds up an outpatient section and laboratory for experimental surgery. He performed digestive, cardiac and urological surgery, introduced renal dialysis, started the experimental surgery of renal transplants and updated medical teaching as rector of the Medical Pharmacy institute (for 17 years). He also was ministry of Health and President of Romanian Academy. His scholars were Valentin Neagu, Dinu Dimitriu, Eugen Proca, P. Ioanid, P. Simici, Petre Georgescu, N. Angelescu, Dorin Niculescu and Nicolae Noica.

**Vladimir Butureanu** (1895-1979) is running the school of I. Tanasescu and N. Hortolomei in Iassy and is tutoring a bunch of surgeons as Costache Lazar, Victor Strat, Mirea Chifan, Costel Plesa and others.

**Gheorghe Chipail** (1905-1997) is also working thoracic and pulmonary surgery in Iassy with his pupils: Constantin Dolinescu, Costel Plesa, Cristian Dragomir, Mihai Stoian and others.

**Alexandru Pop** (1885-1954) uptakes I. Iacobovici’s team and prepares a new generation of surgeons among which are V. Ilian, Eugen Cosma, Aurel Nana, Petru Martin, I. Toader, Crișan Miricioiu, Ion Mureșan, Ioan Danicico and others.

Up to day, general surgery is continued and upgraded by the pupils of the above mentioned masters and is more and more recognized in Europe and world-wide.

Starting with the last decade of the 19-th century and in 20-th century, from general surgery emerged several special fields, according to the western pattern:

**Pediatric Surgery**

It began in 1874 at “Grigore Alexandrescu” Hospital leaded by **Grigore Romnieceanu** (1845-1915), a former resident of C.D. Severeanu.

**Ion Bălăcescu** (1870-1944), graduated doctor in medicine in Paris and former resident of Th. Ionescu is the first chairman of paediatric surgery (1938) and had scholars as Dumitru Vereanu and Mircea Socolescu.
Alexandru Cosăcescu (1887-1951), former resident under Th. Ionescu and E. Juvara is transferred from Iassy and is continuing to lead I.Bălăcescu’s team.

Dumitru Vereanu is continuing his forerunner’s effort to update and speed the pediatric surgery knowledge in the country.

In Cluj pediatric surgery was practiced by professor I. Pragoiu and in Iassy by I. Botia.

Ophtalmological Surgery

The first professor was Vasile Vlădescu, former resident under C.D.Severeanu, design as chairman in Coltea hospital in 1877.

Nicolae Manolescu (1850-1910), graduated in Paris and Wien is the real founder of the school, after obtaining in 1888 the chair of ophthalmological surgery at Coltea hospital. He imagined and performed original procedures in cataract and glaucoma through which he became famous abroad. He raised scholars like Gheorghe Stanculescu, Elena Densuşianu-Puşcariu and Dumitru Manolescu.

In Iassy ophthalmological surgery was chaired by Dumitru Manolescu and after him by Elena Densuşianu-Puşcariu and Petre Vancea.

E.N.T. Surgery

Is recognized as individual specialty since 1901, when the chair in Coltea hospital was occupied by Eugen Felix (1874-1917), tutoring Nicolae Metianu and Alexandru Costiniu. Since 1943, Ion Teţu (1893-1971) became chairman of ENT Surgery in Colţea hospital and raise a bunch of specialists that spread the school’s experience all over the country.

Urological Surgery

In 1911, Petre Herescu (1871-1915), graduated doctor in Medicine in Paris is designated chairman of the clinic in Colţea hospital. Since 1933, N. Hortolomei, and is continued by his outstanding pupils – Th. Burghele, Gheorghe Olănescu, Oscar Franke (Iassy), Eugen Proca. It is to be mentioned the first homotransplant in the country performed by Proca.

Urological surgery was practiced at its beginning in Cluj by Petru Bruda and in Timisoara by Iosif Bulbuca.

Gynecological Surgery

First procedures were demonstrated by George Assaky (1855-1899), graduated in Montpellier and Paris.

The first chair was created in Iassy (1894) designing professor Vasile Bejan (1852-1923), followed by Constantin Daniel (1876-1972) graduated in Paris and former resident of Th. Ionescu. Constantin Daniel was chairman in Iassy between 1910 and 1915
and was brought to Coltea hospital in 1920. In Iassy the chair was occupied by Eugen Aburel.

In Bucharest first chair of gynecological surgery was created in Filantropia hospital and first chairman was Dumitru Drăghicescu. In 1912 the chair is occupied by Nicolae Gheorghiu (1867-1958), graduated doctor in Medicine in Paris. He organized and developed the practice, being considered the real founder of the first Romanian modern school of obstetrics and gynecology, tutoring Nicolae Zaharescu-Karaman, Dumitru Săvulescu, Vlad Vasiliu, G. Dumitrașcu, Cristea Grigoriu and Constantin Stanca (Cluj) and others. A third generation included Marius Georgescu, Iosefina Protopopescu-Pache, Dan Alessandrescu, Panait Sârbu, Salvador Vuia, Nicolae Dobrovici, Ion Parhon, Nicolae Coja, Vasile Luca, Traian Rebedea and others.

**Orthopedic Surgery**

It was initially performed by C.D. Seveleanu, Th. Ionescu, I. Jianu, I. Bălăcescu and Al. Cosâcescu. They were familiar to procedures concerning fractures, luxation, tumors and performed amputations, disarticulations, bone grafts.

Orthopedic surgery was settled on scientific bases by E. Juvara and continued by Alexandru Radulescu (Bucharest) and pupils: Aurel Denischi, Oleg Medrea, Andrei Voinea, Gheorghe Niculescu, Clement Baciu and Dinu Antonescu as well as by G. Floares (Iassy), A. Varna (Cluj), I. Szava (Tg. Mures), V. Climescu (Eforie Sud).

**Neurosurgery**

First procedures were performed by C.D. Seveleanu, N. Turnescu, L. Scully and Th. Ionescu. The real framework of the specialty was created by Dimitrie Bagdasar (1893-1946), specialized in H. Cushing’s clinic in USA and designated chairman in 1935 in Bucharest. His scholar, Constantin Arseni, continued his work, founded the hospital for neurosurgery in 1975 and tutorages Sofia Ionescu, Ion Ionescu, Gheorghe Panoza, Al. Constantinovici, Leon Danaila, Al. Ciurea and many others. He consistently contributed to spread specialty in most important hospital in the country.

In Iassy Alexandru Moruzzi (1900-1957) graduated doctor in Medicine in Paris, occupied the chair in 1934 and founded a neurosurgical hospital. His guidance inspired the performance of T. Ferdman, V. Urbanovici, Nicolae Oblu, E.N. Lupu, M. Bricce, G. Atanasiu and others.

**Thoraco-pulmonar Surgery**

It became a distinctive speciality in 1954 by designing professor Cornel Carpinisan (1904-1970) as chairman in Filaret Hospital. He developed organized and spread the specialty in other hospital in the country by preparing scholars as Constantin Coman, Traian Oancea, Eugen Zitti, O.T. Iliescu, Al. Stan and others.
Plastic and Reparative Surgery

First specialized procedures were introduced by I. Jianu in Colțea, then Colentina hospital was recognized as distinctive speciality by designating professor Agrippa Ionescu (1925-1989), specialized in Soviet Union, as chairman in the new founded specialized hospital. He organizes and implements the specialty in more than 25 hospitals all over the country, sustained by his pupils: V. Aburel, Nicolae Chiotan, A. Pârvu, I. Comnoiu, I. Antohi, Fl. Isac, Doina Dumitrescu-Ionescu, Ion Lascăr and many others.

Cardio-vascular Surgery

- Cardiac surgery was implemented by N. Hortolomei, who performed in 1953 the first operation for mitral stenosis in Romania at Coltea Hospital (at less than 2 years after the universal pioneer procedure performed in France by B. Chalnot & R. Benichoux). It was further developed by Dan Setlacec, Voineu Marinescu, Ioan Pop, D. Popa and their pupils.
- Vascular surgery (arterial, venous, lymphatic) started in our country with C.D Severeanu, Dimitrie Gerota and I. Jianu and enlarged its horizon with the school of N. Hortolomei, through T. Ghitescu, D. Setlacec, I. Busu. It is to be mentioned the important place occupied by prof. Pius Branzeu, former resident under Leriche, in Timișoara.

Oncological Surgical

Having famous forerunners as Thoma Ionescu, A. Jianu, D. Gerota, I. Iacobovici and C. Daniel, oncological surgery became distinctive speciality after 2nd world war with Ion Chiricuță and Alexandru Trestioreanu who leaded the two institutes in Cluj and Bucharest, developed innovative oncological procedures and had scholars as P. Marta, Lucian Lazăr, Gruiu Crișan, I. Bălănescu and others.

After 1945, Universities of Medicine were founded in Timișoara, Tg. Mureș and Craiova, and after 1989 in Constanța, Sibiu, Brașov and Oradea. In these new centers, pupils of the mentioned masters became chairmen. There are to be mentioned: Ion Mureșan, Ion Danicico, Pius Brânzeu, Constantin Caloghera (in Timisoara), Mathyas Mathyas, Zoltan Papai, Ioan Pop.D. Popa, Victor Emilian Bancu (in Tg. Mureș), I. Bușu and P. Geogescu (in Craiova), V. Sârbu (in Constanța), Z. Popovici (in Sibiu) and others.

Minilinvasive Surgery

Mini-invasive procedures in laparoscopic, thoracoscopic, arthroscopic and endoscopic surgery appeared after 1990.

In implementing and developing mini-invasive surgery an important role played Sergiu Duca (Cluj), Vasile Sârbu (Constanța), Nicolae Angelescu and Cornel Dragomirescu (București), Eugen Târ Cloveanu (Iași) and Doru Boroș (Timișoara).

A very important support was ensured by professor Jacques Marescaux (IRCAD / EITS – Strasbourg) who offered scholarships for more than 150 Romanian surgeons.
Valuable surgeons, pupils of great masters that graduated Romanian university centers or prepared abroad, acted as schoolmasters. We have to mention among them: Constantin Andreoiu (Ploiești), Victor Dimitriu (Brăila), Nicolae Hașnaș and Corneliu Adameșteanu (Tg.Jiu), Dan Teodorescu and Dumitru Lezariuc (Constanța), M. Gherasim (Brașov), Benone Georgescu (Târgoviște), Krishar Zoltan (Oradea), G. Iacomi (P. Neamț), G. Popovici (Bacău), Vasile Andriu (Suceava) and many others.

We don’t forget the contribution of our brothers across Prut river, who founded chairs of surgery after the opening of Chișinău University. They are: Nicolae Testemiteanu, Nicolae Anestiadi, Eugen Maloman, Gheorghe Ghidirim, Vladimir Hotineanu and others.

It is of our duty to reveal that their personal expertise, morality, consciousness, responsibility and not at least the passion and talent must remain a model for next generations.

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