

Paul ANGHEL (1869 – 1937) - a reputed surgeon, an empathetic teacher and a poetic spirit

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Abstract.

Paul Anghel was an outstanding surgeon of the Iași Faculty of Medicine illustrating its first decennia of existence. He contributed to the development of the Romanian medical school by his activity and disciples. Trained in Iași, Bucharest and also in Paris, as was the case with many of his remarkable compatriots, Anghel practiced general surgery but specialized in orthopedics, where his creative mind and experience enabled him to imagine and achieve new surgical techniques, including bone transplant, and prosthetic devices. He was a university professor at the Iași Faculty of Medicine, head of clinic at the "St. Spyridon" Hospital in the same city and member of important scientific societies. Dr. Anghel equally dealt with basic topics such as antisepsis and asepsis, wound treatment and war medicine that continued to be main concerns at the dawn of the XX-th century. A silent introspect with a poetic spirit, a cultivated and knowledgeable analyst of his time, Paul Anghel was interested in medical history, too. His scientific reviews always included retrospective glances into history. He pointed out some aspects of the history of the Faculty of Medicine of Iași and of the national medical tradition, and sketched the portraits of several Romanian medical and cultural personalities, proving his affective attachment to their memory. A skilled doctor, an innovative specialist, an empathetic teacher, and an emotional character, Professor Anghel was awarded medals and orders in recognition of his human qualities and civic involvement. He remained a personality of the Iași surgical school, a forerunner of modern orthopedics in his country and a role model.

Keywords: Paul Anghel, Iași, surgery, orthopedics, iatrohistory

Biographical cues



Paul Anghel was born on November 30th, 1869 in Iași, on the former Sfânta Vineri¹ street (today,

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¹ Sfânta Vineri–Holy Friday

Anastase Panu), as the middle son of a family with four children. His father, Dimitrie Anghel (1833-1888), of Macedo-Romanian descent, was a wealthy landowner and a farmer who loved innovations. He brought to Cornești (Miroslava, Iași County), his property, the first steam plow, along with the first threshing and harvesting machines. He also made the first attempts to cultivate rice in this region, helped by Italian colonists. His wife, Paul's mother, Erifila Leatris Anghel (1845-1879), was a delicate young lady of Greek origin, coming from the Bosphorus shores. If his father possessed a vivid imagination, his mother was undoubtedly a very sensitive and cultivated being, able to speak several foreign languages. Paul's elder brother, Constantin D. Anghel (1868-1935) graduated from the Faculty of Law in Paris and published his licence thesis in Iași, in 1890. It focused on differences between the Roman and the Romanian codes of laws. He was a reputed magistrate. His younger brother, Dimitrie (1872-1914), later known as the "poet of flowers", manifested extreme sensitivity. They had a sister, too, Andreea Anghel.

After finishing high school at the United Institutes, Paul Anghel enrolled at the Faculty of Medicine of Iași, but in 1890 he transferred to the similar Faculty in Bucharest.

In 1893 he went to Paris where he did his externship and internship with celebrated professors such as Adolphe Jalaguier, Vincent Georges Bouilly and Paul Reclus, who exerted a strong influence on his medical personality.

On June 1st, 1897, he defended his dissertation entitled "Étude sur la pathogénie de l'appendicite" (*Study on the pathogenesis of appendicitis*), obtaining a doctorate degree from the Faculty of Medicine in Paris. The thesis was signed "Dr. Paul Anghel of the Paris University, former external of the Hospitals. Bronze Medal of the Public Assistance" (*Dr. Paul Anghel de l'Université de Paris, Ancien Externe des Hôpitaux, Médaille de Bronze de l'Assistance Publique*), and was edited in 1897 in Paris by "H. Jouve, imprimeur de la Faculté de Médecine" (*H. Jouve Printer of the Faculty of Medicine*). So, the Bronze Medal of the French Public Assistance rewarded Paul Anghel's work in the French capital hospitals. (1,2)

At that time, appendicitis - the theme of his thesis - represented a topic of great interest, preoccupying both Jalaguier and Reclus, Anghel's masters. Reclus, for instance, formulated the «stagnation theory» opposing Dieulafoy's «theory of the closed cavity». In his view, appendicular stasis

would explain the exaltation of microbial virulence, caused not by the sole closed cavity, but "by the stagnation of liquids in the appendix"; it was "a more comprehensive theory which would include all varieties of appendicitis". In turn Jalaguier considered appendicitis a local manifestation of a general infection, and, similarly to Dieulafoy, claimed that the disease could display a hereditary character. Anghel was among those who, on an experimental basis, contradicted Georges Dieulafoy's theory of the "closed cavity", according to which the development of the inflammatory process was due to obstruction of the appendicular canal. Consequently this organ was transformed into a well-defined closed space, where pathogenic microorganisms would exacerbate their virulence, causing acute infection. However, fortunately, sometimes obstruction of the vermiform appendix could remain incomplete.

Back home and professional involvement

Back to the country, Dr. Anghel was employed, with the rank of lieutenant, at the "Regina Elisabeta"² Central Military Hospital in Bucharest, where he worked in the Surgery Service of General Professor Dr. Athanasie Demosthen (Atanasie Demostene) (1845-1925), a physician trained in Paris, who became a prominent pioneering Romanian military surgeon and, since 1879, a corresponding member of the Paris Academy of Medicine.

With socialist convictions, attached to the socially marginalized suffering people, Paul Anghel preferred an apostolate job, and then returned to Moldavia working as a doctor at the "Carmen Sylva" Hospital in Broșteni (Neamț County). There he did an internship for over a year, even though he operated in precarious conditions. This inevitably modest provincial hospital had just been inaugurated on April 15th, 1898, and was named "Carmen Sylva" after the literary pseudonym of Queen Elizabeth of Romania – "The Poet Queen". Dr. Anghel synthesized his activity there in a "Report on the surgical operations and the evolution of the patients in the Carmen-Sylva Hospital-Broșteni" he published in 1900 (Bucharest: Eminescu Institute of Graphic Arts). (3)

But his aspirations were greater. In 1898, when the Romanian Society of Surgery was established in Bucharest on famous Professor Thoma Ionescu's initiative, Dr. Paul Anghel was among its founding members, siding with the venerable Professor Constantin Dimitrescu-Severeanu (1840-1930) and the younger Dr. Ernest Juvara (1870-1933), his former comrade from the time of their Parisian studies.

² "Regina Elisabeta" - "Queen Elisabeth"

The same Thoma Ionescu (1860-1926) had created a year before, in 1897, the *Journal of Surgery*, where Paul Anghel also published.

After a journey through other localities and a short stay, of only a few months, in 1901, at the hospital of Ungheni, a village near Iași, Dr. Anghel moved to Iași, his hometown, as a doctor of the city.

The medical period in Iași and professional ascent

In Iași, Paul Anghel continued his career. The same year -1901- he was elected member of the Society of Physicians and Naturalists of Iasi (SMN), the first scientific institution in the Romanian Lands and in South-East Europe, dating back to 1830. In the *Bulletin* of this Society an important part of his papers appeared (see References), whereas others were printed abroad, in French journals like, e.g., "La presse médicale" (*The Medical Press*).

In 1902 Anghel was appointed secondary surgeon in the service directed by Professor Constantin

Botez (1854-1909) at the "St. Spyridon"³ Hospital. Dr. Botez (Bottez) graduated from the Paris Faculty of Medicine in 1882. In Iași he promoted antiseptic surgery, practised general surgery and performed neuro-surgical interventions as well. Together with his celebrated predecessor, Professor Ludovic Russ senior (1816-1888) and his illustrious contemporary, Professor Leon Scully (1853-1912), Botez was among the scholars who laid the basis for a valuable surgical school in Iași. Professor Botez was equally a prominent member and president of the Society of Physicians and Naturalists of Iasi (1900-1903) and was affectionately remembered by Anghel in one of his later memorialistic essays.

A year later, in 1903, Paul Anghel defended his docent degree thesis, which included his "Contributions to the study of prostheses" (Iași: "Dacia" P. Iliescu & D. Grosu, Printing House, 1903). (4) He was confirmed docent of surgery on December 12th, 1903. Subsequently he was appointed head of clinic in Professor Leon Scully's surgical service. Professor Scully, a doctor in medicine of the Paris Faculty of Medicine in 1839, was the first dean and professor of surgery and histology of the Faculty of Medicine in Iași, inaugurated in 1879.

In the university surgery clinic Scully founded at the "St. Spyridon" Hospital, Dr. Anghel further acquired technical skills and theoretical notions as did other future renowned Romanian surgeons - Ernest Juvara, Ion Tănăsescu, Nicolae Hortolomei.

Thus Paul Anghel had the opportunity to learn from two of the creators of the Iasi surgery school - Constantin Botez and Leon Scully, both of whom specialised in France. He revered them as he honoured Professor Ludovic Russ senior's memory, a personality illustrating the Viennese and German medical tradition, and in fact a forerunner of modern surgical art in Moldavia. Anghel specified Russ' contribution to modern surgery in his "Report on the activity of the Surgical Department of "St. Spyridon" Hospital in Iasi" ("Dacia" P. & D. Iliescu Printing House). (5)

In 1904 Anghel obtained the title of primary physician. From this date on he fulfilled the function of clinical professor, and was a substitute professor for surgical departments of the Faculty of Medicine, such as the Department of Operative Medicine (1905-1906) and the Department of External Pathology (1909). Between 1907-1908 he was Professor Ernest Juvara's assistant at the II-nd Surgical Clinic.

For his meritorious activity, in 1906 he was awarded the "Crown of Romania" Order - Knight Grade.

From 1908 to 1913, in addition to his activity at the "St. Spyridon" Hospital, Professor Anghel also operated at the Israelite Hospital in Iași.

In 1912, on the eve of war, "Dr. P. Anghel. Primary Surgeon and Docent of Surgery" once again summed up his experience; this time in a "Report on the activity of the Surgical Department of "St. Spyridon" Hospital in Iasi". (5)

In 1913, during the Second Balkan War, he was mobilized with the rank of colonel for the Bulgarian campaign. The First World War soon followed and he participated throughout this armed conflict which in Romania lasted from 1916 to 1918.

Returning to the Spyridonia Establishment after the Great Conflagration that caused tremendous damages, he had to overcome many difficulties in reorganizing the service he was in charge of.

On January 1st, 1922, Professor Anghel was appointed head of the Department of External Pathology. After Professor Nicolae Hortolomei's departure to Bucharest in 1931, Paul Anghel became the head of the First Surgery Clinic - Surgical Pathology-, where he fulfilled his duties with competence and dedication until his death in 1937.

Between 1935 and 1937, until famed Professor Eugen Aburel's arrival in Iasi, he held the course of obstetric clinic, besides his basic teaching load.

³ St. Spyridon (or Spyridion) – Christian healer and wonder-worker of Greek origin; in Romanian: Sf. Spiridon

A fine diagnostician and a skilled operator, not only in the practicum at the patient's bedside, but in research and didactic activities, too, Paul Anghel established himself as one of the great masters of surgery in Iași, which he oriented towards a complex and broader clinical approach. Even though a general surgeon, his field of interest was mainly orthopedics and traumatology.

Research accomplishments

During his life as a surgeon he published numerous papers - about 80 -, which document his ingenuity in improving classical techniques, and in finding new methods. These original contributions included "A procedure of bone prosthesis by metal clamps" (1898), a method of metal osteoplasty, published in the *Journal of Surgery* (1898, no.6), greatly appreciated at the Paris Society of Surgery by his former master, Paul Reclus. Proving to be Anghel's priority, Reclus granted him the right of innovator, as the procedure already began to spread rapidly under various other foreign names, although the method belonged initially to Anghel. In fact, Anghel himself requested the attestation of his original contribution by the Society of Surgery in Paris.⁽¹⁾ This method constituted an interesting novelty in both the treatment of fractures and the technique of bone resection. He created prosthetic devices. (4,6) One of them was set up in order to immobilise fractures, correcting the simple Hennequin type of plaster casts and preventing bone fragments displacement and



overlap. It was inspired by similar devices used in Germany by Bernhard Bardenheuer, but his was an improved one, and avoided the inconveniences previously reported by Henri Rieffel. (Fig.1a, b) (7)

b.

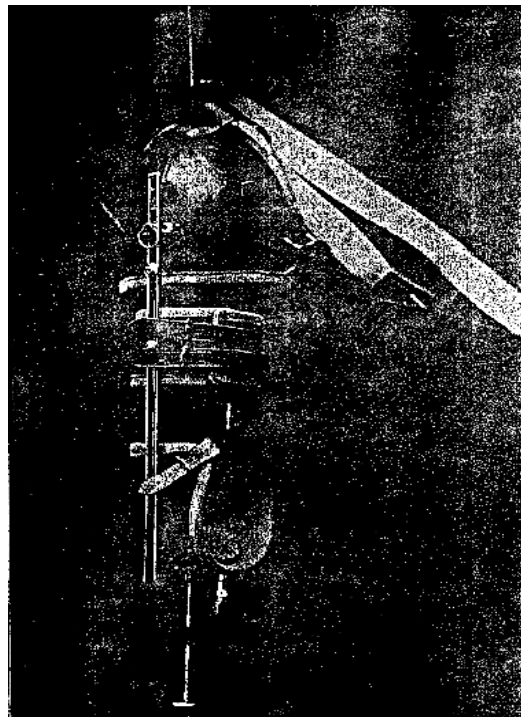


Fig.1 A new prosthetic device created and implemented by Professor Paul Anghel: a. the prosthesis immobilizing the fractured limb; b. Anghel's prosthetic device:

„In order to remedy these inconveniences, i.e. fragments displacement and overlapping, I imagined this orthopedic device which has the advantage that it can be applied immediately by anyone. It also has the advantage of being able to be applied to any fracture of the diaphysis and to ensure a continuous extension. By this, the fragments that tend to fit, being pulled on top of each other by muscle contractions are kept away throughout the formation of the callus and held together by the circular leather bracelet. The device consists of 2 metal blades connected by a loop that passes at some distance under the elbow bent at a right angle. The blades pass one to the inside of the arm and another to the outside. It is very simple and can be applied immediately, by anyone, without much learning. It is solid, cannot be easily damaged as Rieffel claims, and can be applied in all fractures of the humeral diaphysis. Moreover, it perfectly allows the mobilization of the patient. As you can see in the

photo I present to you, I don't think this device has anything to do with those described by Rieffel. Mechanics making such great progress, I am convinced that in large surgical clinics such mechanical devices have their place and, by improving them, a real service is brought in the treatment of all fractures and will tend to replace plaster casts.” (7)

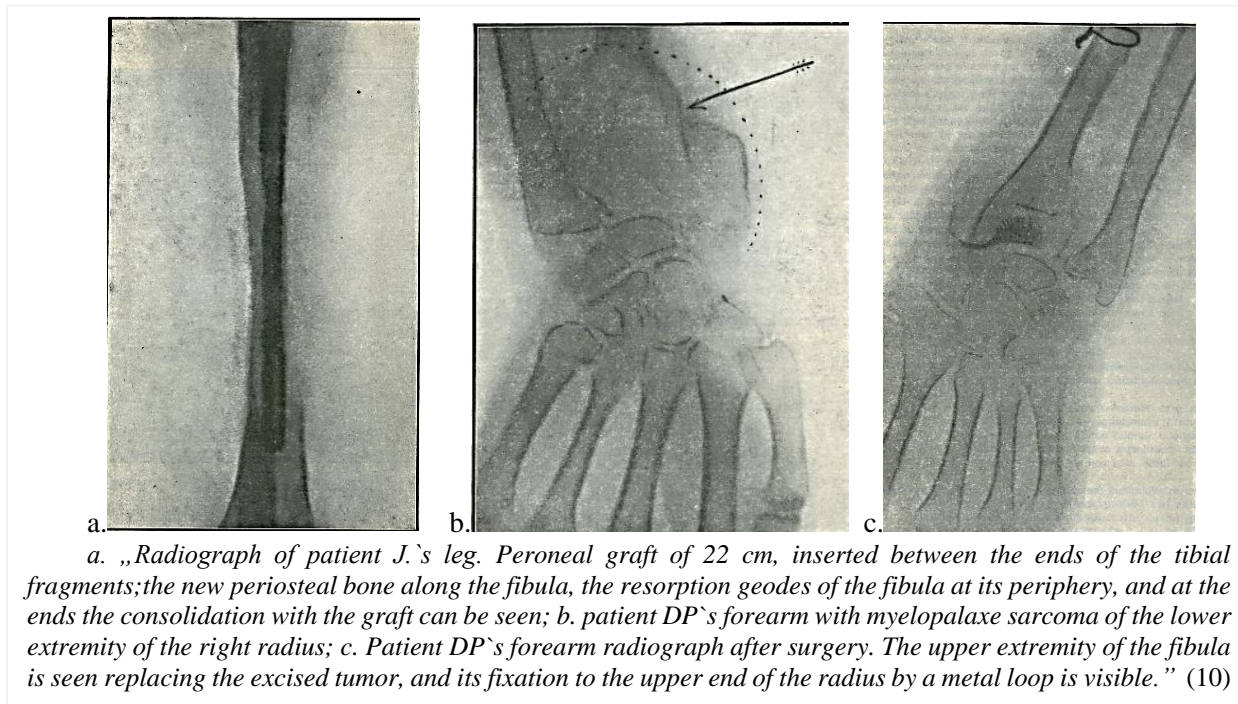
To the same category belonged Anghel's pioneering works in Romanian orthopedics bearing on a new osteoplastic procedure used in knee disarticulations (8) as well as on bone homo-grafts and self-bone grafts, intended to replace substance loss.(9) As did other contemporary doctors, Professor Anghel distinguished grafts from transplantations, and practiced such techniques. (Fig 2, a,b,c) (10)

Apart from his excellence in orthopedics, Anghel successfully investigated and treated other surgical pathologies. He practiced operations for intestinal occlusions (16), encapsulated peritonitis (17), abdominal penetrating wounds (18), he performed and discussed gastroenterostomies (*A critical study of gastro-entero-stomy*, 1911) (19).

Neither did he neglect elementary problems, such as antisepsis and asepsis in the treatment of wounds (20), cephalic tetanus (21), war medicine (22) or complementary topics like heliotherapy and actinotherapy. (23)

Paul Anghel's passage through the obstetric clinic also contributed to his involvement in improving Alquier-Alexander's uterine ligamentopexy procedure.

Surprisingly, maybe, whenever writing



Dr. Paul Anghel also dealt with the treatment of rare forms of elbow dislocation accompanied by wounds (11), osteogenic exostoses (12), and other interesting clinical cases. (13,14,15) Here are some titles of his articles: *Forward dislocation of the elbow complicated by the wound, with penetration of the lower extremity of the humerus through the wound* (1901), *Contribution to the study of prostheses* (1903), *Traumatic detachment of the right superior humeral epiphysis* (1908), *Bone grafts. A Clinical study* (1915), *A new osteoplastic knee disarticulation procedure* (1916), *Bone transplantation* (1930), *Considerations on a case of sacrococcygeal teratoma* (1934).

scientific papers, a retrospective glance to the history of medicine was always included in his argumentation.

The birth of the orthopedic service in Iași

In the field of surgery and especially of Orthopedics, Paul Anghel developed a real school in Iași. In a report on the activity he carried out between 1926 and 1927, Professor Anghel stated that “all the most important chapters of orthopedic pathology had been taught and were exemplified with practical presentations and clinical cases, and at least one hour of polyclinic was delivered per week”. In 1926, a free Orthopedics course was approved at the Faculty of

Medicine in the capital of Moldavia. It was destined to be held by Dr. Tereza Castano-(Savini)-Panaitescu. Detached from Anghel's Department in 1927, an autonomous conference (chair) of orthopedics was established, finally entrusted to Associate Professor Dr. Andrei Trosco, one of those who would consolidate the beginnings of orthopedics in Iași. (24) The progress of orthopedics was probably equally potentiated and speeded up by the frequent and traumatic wars that continued to occur during the late XIXth and the first half of the XXth centuries.

An educational model in medicine

One of Paul Anghel's students and coworkers, the anatomist and surgeon Eugen Lucinescu, spoke with great consideration and warmth about his master, emphasizing his open, rational and balanced spirit: "He only admitted what was clear, fully and plainly explained, he liked to get to the heart of the matter. Controversy was allowed and whoever was right, Professor Anghel accepted it without being upset, but he was even proud to have a student who would contradict and convince him. Even though a silent introspect with a poetic spirit, a cultivated and knowledgeable analyst of his time, his criticism was prompt and, when it was harsh, Anghel did it in a way that ruled out insult."

The "ex-cathedra" teachings, but especially the daily debates at the patient's bedside or in front of the operating table were always performed through the prism of Professor's own experience, which bestowed on his lessons the quality of being positive, lived facts, imprinted forever in the minds of his students and young collaborators. Thanks to a long practice and thorough investigation of each element he encountered, Paul Anghel had acquired that exceptional clinical sense - that "surgical temperament" - which is nothing else but the result of an almost complete medical culture and experience gained with each case deeply and critically analyzed. This special *clinical sense* made possible, for instance, the preoperative diagnosis by Professor Anghel of a mesenteric disinsertion, as some of his contemporaries confessed.

Humanitarian socialism and civic consciousness

Anghel was constantly permeated by an all-encompassing humanitarianism, which throughout his life oriented his protective attitude towards the sick, the students, the people in need, in general. Those he cared for felt intercommunion with him and the warmth of the one who, a sufferer himself, more

truthfully understood the human pain he empathized with. Influenced by the Parisian intellectual atmosphere of his days, always sharing his neighbour's distress, Paul Anghel adopted socialist ideals, was part of the Young Romanians' Socialist Group and promoted progressive ideas. In Paris he could meet other compatriots who were adepts of this ideology, like e.g. Alexandru Slătineanu and Ioan Cantacuzino. In 1893, together with another student from Iași, Emil Racoviță, Anghel greeted from Paris, by telegram, the first Romanian Social-Democratic Congress. He was familiar with the "Contemporanul" (*The Contemporary*) socialist movement that flourished in the capital of Moldavia, and was close to its well-known leaders Constantin Dobrogeanu-Gherea, Constantin Mille, Ion Păun-Pincio.

Literature, a "violon d'Ingres"

Paul Anghel was not only an ingenious surgeon, but equally a cultured man, an artistic soul and a literary talent, gifts he probably inherited from his family. Besides, the early loss of his mother along with the hard experience of the boarding school of the United Institutes as a child, had accentuated his melancholic temperament.

He wrote numerous articles about Romanian forerunners, leaving a series of edifying portraits, but also data related both to the founding of the Faculty of Medicine in Iași (25), and the evolution of the famous Iași Society of Physicians and Naturalists.

Reviewing the vicissitudes of the University in his hometown, including the Faculty of Medicine, Anghel concluded by asking himself metaphorically: „Who will lead the thread of our Ariadne, who will save us even from minotaurs, removing the incessant sacrifices of our Iași?” Undoubtedly, as proved by his condensed story, only the sons of the city – which he was one of – could do it.

Most of his essays were published in the "Notes from Iași" (*Însemnări ieșene*) magazine. The gallery of personalities that caught his attention was supposed to become an entire cycle entitled "Iași Missing Figures". Real and valuable chronicles of ancient times in a nutshell!

To such a context belongs the portrait of his former colleague in Paris and Iași, a talented anatomist and skilled surgeon, Professor Ernest Juvara, whose obituary Anghel published in the Medical-Surgical Journal of the Society of Physician and Naturalists of Iași. Paul Anghel was a friend to Juvara both in Paris and in Iași, where Juvara marked with his brilliant personality the school of topographic anatomy and clinical surgery (1900-1912). Trained in the French

school of Poirier and Delbet – outlined Anghel - , Juvara was particularly gifted with both artistic and technical skills. Even though an innovator, he was very prudent in applying new surgical procedures and extremely respectful to the patients. In Iași, Professor Juvara promoted asepsis and spinal anesthesia by stovaine, he performed in keeping with the method of his beloved Master in Bucharest, Thoma Ionescu. (26)

In “Notes from Iași” Anghel portrayed figures of passed away personalities he appreciated: Professor Ioan Cantacuzino, the towering microbiologist internationally acknowledged for his scientific research, but equally involved in social and educational activities in his country, a hero of World War I; Anghel presented him according to the memoirs of his disciples.(27) Dr. Ion Guțu, was another figure affectionately evoked by his colleague and friend, Paul Anghel; Guțu had been a fervent supporter of the union of Bessarabia with Romania, an ideal for which he sacrificed his life. (28)The personality of Eduard Gruber, Anghel’s professor at the United Institutes (Iași) and founder of experimental psychology in Romania, represented another outstanding scholar he characterized, along with his Master in surgery’s portrait, Dr. Constantin Botez. (29, 30) Other pages of his literary work -in fact a book review- brought to light some of the most important members of the “Junimea” Literary Society in Iași, from its founders Titu Maiorescu, Iacob Negruzzi and Petre P. Carp, to its emblematic writers such as Mihai Eminescu, Ion Creangă, Vasile Alecsandri, Alexandru D. Xenopol. In addition to biographical details, some unique anecdotal nicknames of members, together with the atmosphere during the meetings of the “Junimea” Society were mentioned. (31) Sometimes, aspects of the cynegetic realities attracted him, as well. (32)

Ad astra

Professor Paul Anghel left this world 84 years ago, on the night of April 3rd to 4th, 1937, after a long and difficult illness, he resignedly endured, thoroughly analyzed as another clinical case in his career, and attentively presented to his students. Before leaving peacefully for a better realm, he had just finished to write about the remarkable Professor Ioan Ciure from the Iași Medical Faculty, one of the founding Masters not only of the Faculty itself, but also of the United Institutes, Anghel attended as a teenager pupil. The circle of memories was thus closing.

As another famous orthopedist who succeeded Paul Anghel at the First Surgical Clinic in Iași - Professor Dr. Alexandru Cosăcescu – observed, the

literary and historical essay was for Paul Anghel “a form of refuge in the favorable and friendly past, his defense against the brutal current reality. With P. Anghel -he added- the beautiful and pure figure of professors and mentors vanished from our University.”

At the death of the Master, Professor Grigore T. Popa, chief editor of “Notes from Iași”, remembered in his turn in this magazine the details of Dr. Anghel’s painful end, pointing out that neither this time did he made any mistake in anticipating his own imminent disappearance, after fifteen years of progressing suffering. “Professor Anghel was a silent man all his life, hence a man condemned to be disregarded in a noisy society.” “Calm he lived, calm he died.” Gr. T. Popa outlined his stoic passing away, his clear consciousness of death expressing “the heroism of the silent”.(33) Popa directly collaborated with Anghel at the “Notes from Iași” journal.

By the example of his hard work and inventive spirit, his empathy with the sick, honesty and modesty, his dignified and elegant attire, Professor Paul Anghel remained one of the prominent figures of the Faculty of Medicine in Iași, a worthwhile role model for his followers.

Per aspera ad astra, his destiny was fully accomplished, indeed.

Conflict of Interest

Author has no conflict of interest to disclose.

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