

THOMA IONESCU (1860–1926) THE FOUNDER OF THE ROMANIAN SCHOOL OF SURGERY AND TOPOGRAPHICAL ANATOMY

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Abstract. The paper presents historical aspects concerning the medical activity of Prof. Thoma Ionescu, distinguished surgeon and anatomist, the founder of the Romanian School of Surgery and Topographical Anatomy.

Keywords: History of medicine, Romanian School of Surgery and Topographic Anatomy, rachianaesthesia.

1. SHORT BIOGRAPHY

Thoma Ionescu was a Romanian surgeon and anatomist, the initiator of new surgical techniques, Professor and founder of the Romanian School of Surgery and Topographical Anatomy (Fig. 1).



Fig. 1. Thoma Ionescu.

Thoma Ionescu was one of the most important personalities in the world of surgery in the late of 19th and early 20th century, making virtually all the great

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surgical operations of its period: clinical surgery, experimental surgery, general surgery and methodological parts of operating medicine.

He had numerous contributions which are considered classic, in uterine cancer, in surgery of the digestive tract cancer, in urological surgery, orthopedics, neurosurgery, endocrinology, ophthalmology, etc. He introduced high rachianesthesia, cervico-thoracic, methods that have worldwide acclaimed as Romanian methods. As a versatile researcher, his achievements are valuable because they are based on ingenuity, experimental work, which has proven over time on thousands of clinical cases worldwide.

Thoma Ionescu was born in Ploiesti and attended High School "St. Sava" in Bucharest. He studied at the Faculty of Medicine in Paris (1878–1885) and in parallel with the Law Faculty.

As a medical student, he demonstrated outstanding skills and was rewarded with the Prize of "Laborie" of Medical Academy for a scientific paper and subsequently for his work he had received "The silver medal of Hospitals of Paris". He graduated at the same time from the Faculty of Law in Paris, but he never practiced law.

Thoma Ionescu was the brother of Romanian politician Take Ionescu.

With dedicated medical activity, in the years 1882–1885 he worked as an extern, then between 1885–1890 he became an intern at Hospitals in Paris. In 1892 he became Doctor of Medicine and Surgery with a doctoral thesis under the title "Le côlon pelvien pendant la vie intrautérine".

Thoma Ionescu, in 1894, he had collaborated with Charpy, Nicolas, Prenant, at the elaboration of a "Treatise of Anatomy", in which he wrote the first fascicle of volume IV that contained the digestive tract, excluding annex glands. Trained in the School of French anatomy and surgery, he gave up of a brilliant career as a surgeon in France to build the basis of the modern surgery in Romania.

In February 1895, at 35 years, he returned to Bucharest, as Professor of Surgery in the 2nd Department of Clinical-Surgical Colțea Hospital and as Director of the Institute of Topographical Anatomy and Experimental Surgery. Through this institute and his teaching and clinical activity, he founded a Modern Surgery School, making connection between the comparative anatomy with the experimental surgery. His service provided at European level, was a model of organization for both Romanian surgeons, as well as foreign ones.

In 1925 he was appointed Professor of Surgery at the Faculty of Medicine of Bucharest by a Committee chaired by Prof. N. Kalinderu, job he kept until his death in 1926.

Thoma Ionescu was elected three times Dean of the Faculty of Medicine in Bucharest, between 1906–1912, 1921–1923, and 1925–1926. Between 1912 and 1915 he became Rector of the University of Bucharest.

Thoma Ionescu founded the journals "Archives des Sciences Médicales" (1896); "Journal of Surgery" on 1st March 1897, which was the first Romanian

medical publication focused on the problems of one medical specialty, and also the Romanian Society of Surgery (11th February 1898). For these accomplishments, Thoma Ionescu was honored on a stamp issued by Romania in 1998 to commemorate the 100th anniversary of the founding of the Romanian Surgery Society on 11th February 1898.

Thoma Ionescu was a member of the Academy of Medicine in Paris, the International Society of Surgery and an honorary member of the Romanian Academy in 1925, known politician recognized at a national and European level and also a great patriot.

Politically, Thoma Ionescu was involved in historical events that marked national history, being participant in the First World War and the Great Union from 1918.

He was the first delegate of Romania to the "Society of Nations", and he published two volumes entitled "La quésitione roumaine". His political and patriotic activity was internationally recognized, so that he was decorated with the Order of the Legion of Honor in France.

2. CONTRIBUTIONS IN NEUROSURGERY

In neurosurgery he studied the cranial surgery on multiple levels, knowing and studying in detail both the theoretical and practical. Knowing the theoretical innovations in crano-cerebral pathology, verified on his personal casuistry, he managed to make a personal point of view, which was proven by a factor of progress.

Thus, we can mention his concern for cervical sympathetic surgery, which has attracted the attention of the medical world on this chapter of pathology, even though the method has been replaced.

His approach of neuro-surgical problems was based on a profound analysis of the subject. He documented in detail concerning the history of the problem, find out about the main medical points of view, watching the evolution of medical ideas, taking the critical contribution of each author, summarized the contradictory materials and forming a personal point of view, thus the approach in general surgery and neuro-surgery field.

From the diversity of methods of approach to brain damage, he realised the prospects and importance of "temporal craniectomy", as proposed by Doyen in 1895.

Thoma Ionescu, in period when the diagnosis of intracerebral lesions were only based on neurological examination data, realized the value of approaches for cerebral cortex, which on the one hand, preserves the protective function of the skull, and on the other hand, provides a wide path to cortex and thereby to possible intracerebral lesions.

On 28th March 1895, the method Doyen in temporal craniectomy used for humans was presented at the Congress of Surgery in Paris from October 1895, being made with a special tool, manual or electric, designed by the author.

On 2nd February 1897, Thoma Ionescu did for the first time the Doyen technique in Romania. He operated 13 cases by this technique, whose results were presented at the International Congress in Moscow in 1897, when Thoma Ionescu brought a few changes both in the process of Doyen technique and for tools, reducing the duration of the operation.

Thoma Ionescu critically assessed the published results of surgical techniques in the medical speciality literature, formulating his own experience and a personal view and had made various improvements for operative techniques, in order to find a surgical cure for seizures.

Thoma Ionescu practiced the cranial osteoplastic volet used in temporal hemicraniectomy that was practiced only by Doyen. The operation had been used for therapeutic purpose in the treatment of epilepsy as well as in psycho-intellectual disorders.

In the cases of jacksonian epilepsy, the temporal hemicraniectomy was followed by resection of appropriate cortical substance topographically corresponding to the crises. The postoperative evaluation was favorable and frequent epileptic crises existing before the operation had all disappeared in some patients, who were able to resume their work. In operating cases where the jacksonian epilepsy were not symptomatic (tumors, abscesses or cortical scarring), the lesion intraoperatively being not completely identified, Thoma Ionescu recommended the resection of a portion of the motor cortex which produces excessive typical epileptic excitation.

In jacksonian epilepsy, Thoma Ionescu considered resection of cortex, affecting in the neighborhood that must not exceed the limits of these centers. This resection suppresses the cortical zone, without altering the corresponding limb motility.

In post-traumatic epilepsy, the bone lesion represented an indication for location of the epileptogenic zone, the resection was only limited at the scar in the brain.

Assessing temporal hemicraniectomy indications, Thoma Ionescu considered that it is carried out as exploratory surgery, as the preliminary surgery or curative surgery. In the Congress in Moscow, Thoma Ionescu claimed the advantages of this process, considering that the trephining operation is a blind one and often insufficient.

Hemicraniectomy surgery can be curative in microcephaly, which needs to be done on a flat and bilateral surfaces. Decompression results in microcephaly were favorable when the intervention is performed at an early age.

In craniectomy, Thoma Ionescu did an important comment about the effect on hemicraniectomy decompression followed by the dura mater section, which avoids secondary accidents of cerebral edema, observation which preceded the finding (1897) made similar by Jaboulay in 1898. Thoma Ionescu made a statistical analyses of 90 operated cases, and he recommended for the lack of aggressiveness of temporal hemicraniectomy and for its effectiveness relative to the results

obtained by trephining skull. These data had convinced to Thoma Ionescu to believe that the future belongs for the temporal craniectomy.

Thoma Ionescu designed the procedure “the osteoplastic bone volet above the cranial plane set with three tacks”, due to the inefficiency of the intracranial surgical approach of cerebral cortex in epilepsy in some cases. To avoid decompression of the osteoplastic bone volet due to a possible retrial of ossification in some cases used the procedure Berezowski, that prevents the ossification of the bone volet by interposing of dural fragments.

Thoma Ionescu used another surgery procedure in the treatment of epilepsy: the complete and bilateral resection of cervical sympathetic, because of the results obtained by surgical resection of the cerebral cortex of epilepsy in some cases. This surgery was at the beginning in 1896, when Thoma Ionescu performed the first operations of cervical sympathectomy.

At the French Congress of Surgery in 1896, Thoma Ionescu indicated the importance of total and bilateral resection of cervical sympathetics in all the disorders of vasomotor disorders of cerebral circulations with an obviously pathogenic role.

Thoma Ionescu, on 27th September 1896, did the first bilateral resection of cervical sympathetic cord above the inferior cervical ganglion.

At the Congress from Moscow in 1897, Thoma Ionescu presented 29 cases who were operated by total bilateral cervical sympathectomy, indicating that between the various types of interventions made for therapeutic purpose on cervical sympathetic, there is some confusion because at this level were performed section, only partial resection of the upper cervical ganglion and total resection of the sympathetic chain, which includes superior ganglion, middle and inferior, and intermediate cord that unites them.

Thoma Ionescu found operations performed by him as limited because they do not solved pathogenic or physiological disorders that are addressed. After him, this new surgery that opens new challenges to be addressed in all directions.

Descriptive and topographical anatomy was relatively little known then. Thoma Ionescu had studied personal descriptive and topographical anatomy of sympathetic system, together with other specialists. With Bruckner had approached sympathetic cervical histology and he had studied in collaboration with Florescu the sympathetic cervical physiology in humans, which he had presented at the 13th International Congress of Medical Sciences, held in Paris in 1900.

In his research Thoma Ionescu showed that between the animal and human physiology there is not a true parallelism.

In addition to pain and epilepsy surgery, Thoma Ionescu was concerned about the primitive optic nerve surgery for tumor with preservation of the eyeball through the temporal resection of external orbital wall. The results of this research, made with Dr. Cohn, were published in “Journal of Surgery” in 1900. Following this problem – the approach of retrobulbar tumors through the Krönlein process –, Thoma Ionescu operated five cases, one of the cases being a colloid degeneration

fibroma and an optic nerve mixoma. In the medical literature there were only 17 cases at that time operated by Krönlein process.

Thoma Ionescu addressed the cerebral hydatid cyst surgery, considering that the clinical appearance of hydatid cyst of the brain is similar to brain tumors. In one case successfully operated he had used as a method of approach used temporal craniectomy, during which highlighted the potential risks in such an intervention: the bleeding bone plan, opening the ventricular cavity, herniated brain substance and “the shock” following of the sudden decompression of the brain substance. Until then, Thoma Ionescu found in the medical literature only 16 cases of cerebral hydatid cyst surgery.

Thoma Ionescu was endowed with a special surgical skill, proving an exceptional dexterity and creative spirit, with a steady hand, elegance and speed of movements. He performed a modern surgery that had expanded and opened new horizons for scientific research. In recognition of its value in the Clinic of brothers Mayo, from Rochester, in Minnesota, USA, bust of Thoma Ionescu was build.

In addition to monographs, scientist Thoma Ionescu had written over 650 studies and scientific papers presented at scientific meetings or published in various periodicals. However, he openend up clinical and experimental research in Romanian surgery, bringing the profound changes in medical education.

The surgery school that he founded had an important role in the formation of the Romanian specialists, bringing their heritage contributing to the enrichment of surgical techniques and knowledge of topographical anatomy.

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