

Professor Constantin Arseni between myth and reality

A.V. Ciurea, R.E. Rizea

Universitary Hospital Bagdasar-Arseni, Bucharest
AV. Berceni, no.10-12, sector 4, Bucharest, Romania;
e-mail: rsn@bagdasar-arseni.ro

In Romania, neurosurgery developed as a separate specialty starting with 1932. Until then neurosurgical activity was sporadically, represented by operations on the nervous system performed by the great surgeons of the time in Romania.

Constantin N. Arseni (1912-1994) is born on 3 february 1912 în Dolhasca, Suceava region. He graduated the Faculty of Medicine of Cluj in 1935, and sustained his doctor's thesis on "Juxta-Protuberance Neurotomy in the treatment of Intermittent Neuralgia of the Trigemini" on June 30, 1936 (Figure 1).

Like student he worked in clinic of professor Iuliu Hatieganu in Cluj-Napoca, but the youngest Arseni loved the surgery of the brain after he see an operation of Dimitrie Bagdasar in Emergency Hospital from Bucharest. At the age of 23, begins the indenture in domain of neurosurgery, below administration and direction of Prof. D. Bagdasar, returned from United States [4].

These first beginnings prove his definite orientation towards neurosurgery, bringing into Romanian specialty literature a problem with neurosurgical implications.

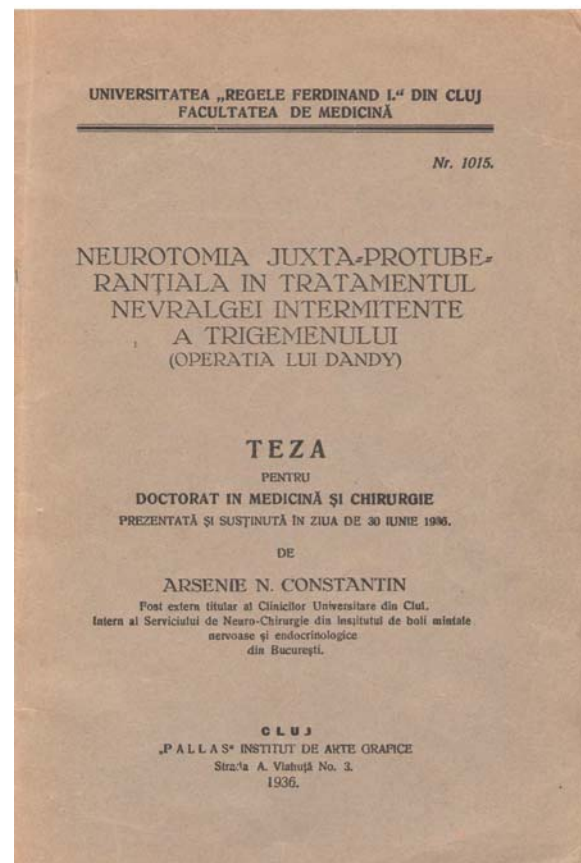


Figure 1 Juxta-Protuberance Neurotomy in the treatment of Intermittent Neuralgia of the Trigemini

After a stage in the Surgical Department of the Emergency Hospital, Bucharest, under Prof. I. Iacobovici, Dr. C. Arseni accepted Prof. Bagdasar's proposal to work in the neurosurgical unit of the Central Hospital of Mental, Nervous and Endocrinological Diseases,

Bucharest. [7; 8] During the 1936 - 1946 period, C. Arseni worked directly with Prof. Bagdasar, but completed his surgical skill during a three years concomitant activity in the Emergency Hospital. He likewise developed his knowledge of pathologic neurology when appointed university lecturer at the Chair of Pathologic Anatomy under Prof. I. T. Niculescu (1937 -1944). [2; 3]

Embracing a career that had not yet been clearly outlined anywhere in the world, he devoted most of his time to the service created by Prof. D. Bagdasar, working with particular enthusiasm in this direction. He was the only surgeon assisting Bagdasar during that period and substantially contributed to the progress of the neurosurgical department and its good management. He was at first responsible for the clinical and surgical treatment of neurosurgical patients, and tried to improve and complete his knowledge and understanding of the newly created specialty. The clinical and laboratory studies carried out during this period were essential for his contribution to the "Traite of Neuchirurgie" published together with Prof. D. Bagdasar in 1950 (Figure 2). [1;9].

At the age of 34 (in 1946) – after the premature death of Prof. D. Bagdasar - the young doctor C. Arseni becomes head of the Neurosurgical Department in the Central Hospital for Mental, Nervous and Endocrinological Diseases, the only department of this kind in the country.

After taking up duty in 1946, in a department with 80 beds after strenuous endeavors, Arseni was able to have the present Clinic of Neurosurgery extending, in Bucharest, as it now stands,

thus contributing to the development of this specialty in the country.

At the University, he was appointed associate professor in 1952 and professor of neurosurgery in 1963. [6].

The Clinic of Neurosurgery of Bucharest developed rapidly, approaching the most various aspects of neurosurgical pathology. The increased number of subjects with which the Clinic was concerned necessitated a constant effort of organization, technical development and research work. In 1964, the number of beds had increased to 220, distributed in the various sections strictly according to the specialties: two surgical sections for cerebral expanding processes, one each for vertebromedullary surgery, infantile neurosurgery, cerebrovascular surgery, epilepsy and dyskinesia, head and spinal injuries, with a subsection of general traumatology. There are two operative blocks with 7 operation theaters. In 1960, a special anesthesia and intensive care unit was opened and equipped according to the most modern requirements. Paraclinical activity and scientific research was carried out at that time (1964) by a laboratory of electroencephalography with 4 modern apparatus, a laboratory of electromyography, of neuromorphopathology and of biochemistry. The neuroradiology department developed both in the direction of standard investigations and complex research work with contrast media: angiography, ventriculography, iodoventriculography, air and iodine ventriculography. The surgery of epilepsy may be applied owing to a: stereotaxic surgical equipment.

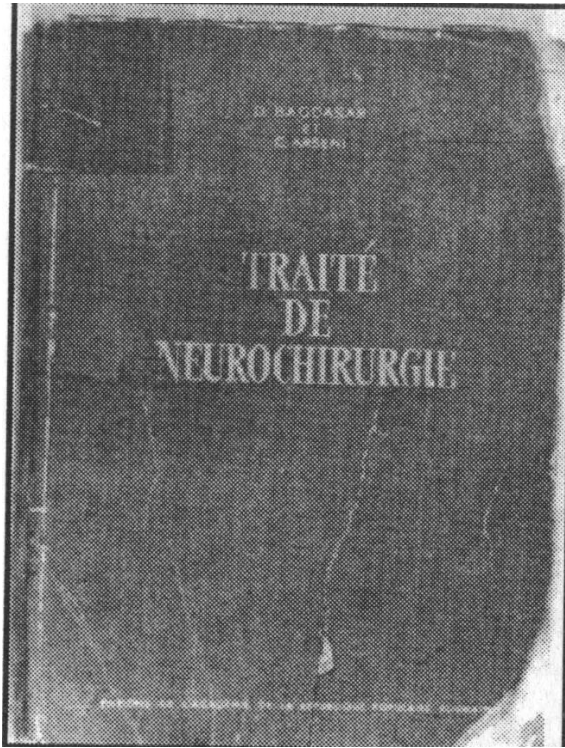


Figure 2 Traite of Neuchirurgie



Figure 3 Prof. C. Arseni

Under Professor C. Arseni (Figure 3), the Neurosurgical Clinic of Bucharest is transformed in 1975 into the "Prof. Dr. D. Bagdasar" Clinical Hospital of Neurosurgery, the largest hospital of neurosurgery in Europe, with 550 beds and, subsequently, 650 beds. It appears as a crowning and a confirmation of the value of neurosurgery within the framework of medical specialties. Conceived and built according to carefully skilled and daring plans, the new Clinic of Neurosurgery is structured in seven clearly separate clinical departments, including also a pediatric neurosurgical department. In the Neurosurgical Clinic there is an independent ICU department with 26 beds. The operatory activity is carried out within two operating theaters with 13 operating rooms. The simple mention of the services within the Neurosurgical Clinic founded in 1975 (Figure 4), reflects just a little the reality. Practically in this clinic is managed the surgical pathology of the expanding intracranial processes, the cerebrovascular surgery, the tumoral surgery, vertebromedullary trauma and degenerative pathology, head injuries, the surgery of epilepsy and dyskinesia, pediatric neurosurgical pathology, peripheral nerves surgery and, as a special element, the neuro-orthopedic pathology.



Figure 4 Clinic of Neurosurgery Bucharest, 1975

With time, the Clinic of Neurosurgery, Bucharest has gradually acquired a paraclinical equipment corresponding to European requirements for this period (1975-1980). Thus, there is a complete neuroradiological department in which all standard and contrast medium neurosurgical investigations, are performed under closed circuit TV screens. Air angiography and myelography with iodine substances are likewise carried out. The brain scintiscanner is in a separate laboratory; direct examination with ^{99m}Tc and radiocisternography with ^{168}Yb are also done in this unit. Electroencephalography and ultrasonoencephalography, with 3 simultaneous operating apparatus, occupies a special unit for this purpose. Of importance is the Laboratory of Morphoneuropathology. A close cooperation exists with the "Dr. V. Babes" and "Dr. I. Cantacuzino" institutes in research work on neurologic and neurosurgical diseases carried out in the electron microscope. The investigations within the biochemistry laboratory are adapted to emergency procedures, assuring the complete emergency service. Also clinical and paraclinical investigations can be carried out in the ophthalmological and ENT departments.

In the developing process of the Neurosurgical Clinic of Bucharest, an important element was the use of the CT-scan (1982) raising immediately the diagnosis value and assessment possibilities in the neurosurgical pathology.

Within the Clinic of Neurosurgery, Bucharest, especially under the guidance

of Prof. C. Arseni, took place a persevering scientific activity stimulated by his personality. The articles in the Romanian medical literature were designed to inform the medical staff in general concerning neurosurgical diseases and to obtain early, competent diagnosis. Among the most interesting publications, some of which have become classical, are: "Vertebral Sciatica" (1948) by C. Arseni and St.T. Iacob; "Vascular diseases of the Brain and Spinal Cord" (1965) by C. Arseni, I. Petrovici, F. Nash, V. Cunesco; "Pain" (1967) by C. Arseni and I. Oprescu; "Neuro-ophthalmologic Diagnosis" (1967) by C. Arseni, M. David, et al.; "Spinal Neurosurgical pathology" (1968) by C. Arseni and M. Simionescu; "Viscero-Autonomic and Trophic Disturbances in Lesions of the brain" (1971) by C. Arseni and M. Botez; "Raised Intracranial Pressure" (1972) by C. Arseni, Al. Constantinescu; "Craniocerebral Traumatology" (1972) by C. Arseni, I. Oprescu; "Intracranial Space Occupying Processes" (vol. I, II) (1973) by C. Arseni et al.; "Spinal cord and peripheric nerve injuries" (1974) by C. Arseni, Al. Constantinovici, G. Panoza; "Neurosurgical Semeiology" (1977) by C. Arseni, Al. Constantinescu, M. Maretsis; "Pathologic Anatomy of Tumors of the Nervous System" (1978) by C. Arseni and M. Carp; "The Cerebrospinal Fluid" (1979) by C. Arseni, D. Chimion et al.; "Neuroendocrinology" (1988) by C. Arseni and M. Maretsis; "Neurologic Semeiology" by C. Arseni and L. Popoviciu; "Cervical Vertebromedullary Pathology" (1982) by C. Arseni and G. Panoza.

In the fields of pediatric neurosurgery, a self-standing specialty since 1960, the following reference publications were edited: "Problems of Neurosurgical Diagnosis in Infantile Pathology" (1978), "Neurosurgical Diseases in Infants and Young Children" (1979), "Infantile Neurosurgical Pathology" (1980) by cooperation of the teams under C. Arseni, L. Horvath and A.V. Ciurea, on the basis of their experience achieved in the Department of Pediatric Neurosurgery.

In the modern neuroimaging diagnosis period the team of the Clinic of Neurosurgery, under the guidance of Prof. C. Arseni, published different monographs in the most various fields of neurosurgery : "Parasitic Diseases of the Brain" - 1981 (C. Arseni, A. V. Ciurea, A. Cristescu, Lenke Horvath, V. Marinescu), "Cerebral and Medullary Vascular Pathology" , in three volumes - 1982-1983 (C. Arseni, L. Danaila, L. Popoviciu, L. Pascu), "Intracranial Surgical Suppurative Diseases" - 1983 (C. Arseni, A.V. Ciurea), "Cerebral metastasis" - 1990 (C. Arseni, Al. Constantinescu).

With the contribution of the entire Clinic of Neurosurgery in the various fields of this specialty 64 monographs and treatises were edited under Prof. C. Arseni. An editorial board under C. Arseni published with the substantial contribution of the medical staff of the Clinic, the "Treatise of Neurology" in 5 volumes, during the 1979 -1982 period. Together with well known specialists from Bucharest and other centers, this treatise discusses in detail the principal neurologic and neurosurgical diseases.

An important role in the neurosurgical training and the new aspects of diagnosis and treatment have had the Library of the Clinic from the "Dr. D. Bagdasar" Bucharest, with numerous books (about 6000) and journals (12 titles), one of the best library of Neurosurgery from Europe.

The Romanian Society of Neurosurgery (RSN) was founded in 1982, the first president being Prof. C. Arseni (1982-1991). He was the President of Romanian Science Medical Academy (1982-1989) and member of Romanian Academy (1985).

Prof. Constantin Arseni continued with perseverance the activity and he can't disunite from purpose of his life: the neurosurgery. He past away in 1994.

Prof. C. Arseni represented the element of formation for modern neurosurgery school from Romania, after the second war. The personality of Prof. C. Arseni dominated scientific and organizational the romanian medicine and neurosurgery of second part of XX century. His paper are knowed in entire world being path breaker in neurosurgery: traumatic brain injury, neurosurgical approaches for basals ganglia, pediatric neurosurgery pathology, intracranial parasitosis, etc. From year 2002 the clinic of Neurosurgery from Bucharest have his name: Hospital Bagdasar-Arseni.

References

- 1.Aldea H: Neurochirurgi celebri, Ed. Glasul Bucovinei, 1993
- 2.Arseni C: The development of Neurosurgery during the last 20 years in Neurology Psihiatry Neurosurgery, 9, 305-308, 1964

3.Arseni C: Viitorul in neurologie si neurochirurgie, Ed. Academiei, 1984

4.Arseni C, Aldea H.: Momente din istoria neurochirurgiei romanesti, Ad. Academiei, 1988

5.Arseni C, Ciurea A.V.: The history of Romanian Neurosurgery, Ed. Medicala, 1981.

6.Maretsis M.: Aniversarea unei prodigioase activitati neurochirurgicale. Neurol. Psihiat. Neurochir., Bucharest, 25, 4, 289-290, 1980

7.Mateos J.H., Neurosurgery, a triumph of human kind. Romanian Neurosurgery, 2, 107-118, 1993

8.Wertheimer P., David M.: Naissance et Croissance de la Neurochirurgie. Neurochirurgie, Paris, 25, 5-6, 253-263, 1979

9.Bagdasar D., Arseni C.: Traite de Neurochirurgie, Ed. Academiei RSR, Bucharest, 1951.