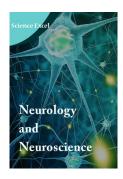
## **Neurology & Neuroscience**



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# Two Unedited Pages About the Beginning of Neurosurgery in Inter-War Romania

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The first neurosurgical operations in Romania started at the end of the 19<sup>th</sup> century, thanks to significant advancements in various fields. These developments dramatically changed surgical practices, including anaesthesia, asepsis, antisepsis, experimental surgery, preclinical investigations, and pre-and postoperative care. As a result, surgeons were finally able to access formerly inaccessible anatomical areas within the nervous system.

From the array of Romanian surgeons, out of which a significant number were educated at medical schools in Paris, Berlin or Vienna, I will mention George Assaky, Themistocles Gluck, Nicolae Racovițeanu-Pitești, Leonte Anastasievici, Athanasie Demosthene, Constantin Dumitrescu-Severeanu, Thoma Ionescu, Ludovic Russ Senior, et al. Thanks their solid anatomical and surgical knowledge, they were able to efficiently approach all pathologies from all anatomical areas of the human body, as well as the central and peripheral nervous systems.

In the first decades of the 20<sup>th</sup> century, particularly after the First World War, Neurosurgery Departments began to appear in the United States, Great Britain, France, Italy, Germany, Austria-Hungary, and Russia.

That global beginning, which marked the separation from the wide field of surgery of a distinct speciality focused on nervous system pathology, had a profound impact on the Romanian Medical community, which was connected through medical journals and participation in international Congresses to the universal values of surgery.

Dr. Dumitru Bagdasar [1] was the first among the young, excellent graduates of Romanian medical education to begin his neurosurgical training between 1927 and 1928 in the renowned neurosurgery private practice of Professor Harvey Cushing [2] in Boston.

The second of them was Alexandru Moruzi [3], who, during his medical studies in the French capital, completed Neurosurgical internships in the departments led by doctors M. Robineau and De Martel, between 1928 and 1930.

Last but not least, Dem. O. Vasiliu [4], a graduate of the Medicine Faculty in Bucharest

who got specialisation both in the USA (H. Cushing, Ch. Frazier, W. Dandy, et al) and in Europe (Th. De Martel and Clovis Vincent) between 1932 and 1934.

'I don't pretend to know what other people are like, the great storyteller Ion Creanga wrote in one of the chapters of his Memoirs, transposing us into the enchanting universe of his childhood. It is evident that, subconsciously, each of us treasures facts and events from our early days that are engraved in our minds forever! I shall try to decipher an event from the hippocampus of my memories, which was told to me when I was an adolescent. It is about a surgical procedure completed by Dr. Dumitru Bagdasar in 1934, during the pioneering age of Neurosurgery in inter-war Romania, on a member of the Dumitrescu family, who would later become part of my own family. I think of Ion Creanga saying, and I remember the avalanche of events I lived through or heard about during my childhood and teenage years.

My experience in Neurosurgery has no doubt played a role in that. The details of the surgical operation undergone by my **step-grandmother** are vivid in my mind. She passed away after three days. I will remember this episode for the rest of my life!

I believe that fate had a role in my obtaining the protocols completed by the operator and his assistant regarding the surgery performed 91 years ago on Maria Dumitrescu, the mother of my stepfather, Iulian Dumitrescu. This information allows me to solve a significant scientific challenge.

The surgeon's protocol is, unfortunately, incomplete compared to other operation protocols. I found it in the Archives of the today Bagdasar-Arseni Emergency Clinical Hospital in Bucharest, the 'descendant' of the former Central Sanatorium for Mental and Nervous Diseases, where the operation had been performed. The other, a more ample source of information, is Maria I. Niculescu<sup>5</sup>'s Notebook, Operations of nurosurgery I assisted with. I discovered this manuscript in the Library of the History of Medicine at the Institute of Public Health in Bucharest.

Dr. Bagdasar usually noted down all the

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protocols of the surgical procedures he performed in a clear and nice calligraphic style. The protocols included the following headings: date of the intervention; patient's name and surname; age; names of operator, assistant, or assistants; anaesthesia used; patient's diagnosis and the operation performed; description of the operation and, sometimes, brief comments about the macroscopic examination of what was removed or about the general intra - or postoperative conditions of the patient.

The details offered by Dr. Maria Niculescu (from February 1, 1934 to March 19, 1940) by contrast with Dr. Dumitru Bagdasar protocols include data concerning the patient identity and age; his occupation; who referred or neurologically consulted the patient; location where thee intervention was carried out; medical history of the disease; medical antecedents;

preoperative symptoms; type of operation performed; duration of the operation; postoperative evolution, sometimes specifying – marked by a cross – the number of days until the patient passed away; and in some cases, the fee charged to the patient. Thus, that Notebook represents a supplement to the information in the operator protocols, completing the patient observation sheet, more than 90 years after those data were recorded.

Passing from general observations to the specific medical condition of Maria Dumitrescu, the comments left by Dr. Dumitru Bagdasar are more concise compared to those of Dr. Maria Niculescu. The latter ones include details about anamnesis, neurological and intraoperative conditions, and the progressive status of the surgery. It allows us a clear understanding of the therapeutic behaviour towards the patient.

Dumitiesan Maria, 39
Tumoro cerebrata.

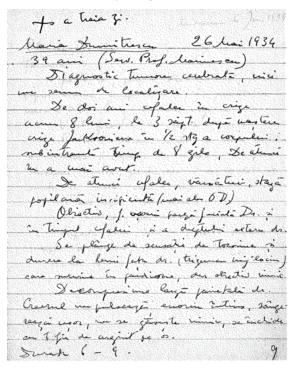
12 Mai 1954.
Volet fronto temp parietal de

Original of Dr. Dumitru Bagdasar's protocol Dumitrescu Maria, 39

Brain tumour May 22, 1934

Right front-temp[oral]-parietal flap

Dr. Dumitru Bagdasar protocol (translation)



May 26, 1934

Maria Dumitrescu, 39 years old, (Prof. Marinescu ward).

Diagnosis: brain tumour, no sign of localisation.

For two years, headaches in attacks; 8 months ago, three weeks after birth, subintrant Jacksonian seizures in the left half of the body, recur for 8 days. Since then, she had no more.

All that time, headaches, vomiting, and incipient papilledema (especially R.O.).

Objectively, very slight facial paresis during the headaches, and of the right oculomotor nerve.

She complains that she feels tension and pain in the right hemiface (middle trigeminal) that occur in paroxysms, but objectively, there is nothing. Wide decompression on the right parietal. The brain does not pulsate; it is enormously distended, bleeds slightly, nothing is found; it is closed with a silver thread on the bone.

Duration of surgery: 6-9 hours.

The patient died three days later.

Dr. Maria Niculescu notes (translation)

At the same time, there is some discrepancy between the dates of surgery for Maria Dumitrescu. According to Dr. Bagdasar's protocol, the operation took place on May 22, 1934. Dr. Maria Niculescu specified in her Notes that the patient have been operated on May 26, 1934. Surely, the operation took place on one of these days, and I am convinced that the correct date is May 26. My conclusion is based on the consistency of the information provided by the assistant and the scarcity of notifications in the operator's protocol. He probably thought that he would review and complete the missing data later.

I conclude this article with two remarkable descriptions. The first is the image6 of the ward where patient Maria Dumitrescu was treated. The second is the description of the conditions under which the operations were carried out in that department, which is a fragment of a recall of Dr. Maria Niculescu.



With the naked, screaming patients held behind bars and, in this sinister atmosphere, the beautiful operations performed on a wooden, improvised table, with the domestic vacuum cleaner adapted for surgeries and instruments mostly purchased or made according to Bagdasar's instructions, thus following Cushing's example, but with incomparable material resources [7].'

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- icpe-ca.ro/icpe-ca/wp-content/uploads/2019/07/buletin-nano.jpg-generatii in Romania.
- 3. Alexandru Moruzi (1900-1957) studied Medicine in the French capital. He completed neurosurgery internships in the wards of doctors M. Robineau and De Martel between 1928 and 1930. In 1930, Moruzi returned to Romania. He worked in the surgery clinic of Coltea Hospital, as assistant to Professor Amza Jianu until 1933. In 1939, Moruzi was appointed as a Professor of Urology at the Faculty of Medicine in Iasi, where he practised both surgery and neurosurgery. In 1947, Moruzi emigrated from Romania to Switzerland, Venezuela, and the United States, where he gained full recognition as a Professor. During that time, he could no longer practice neurosurgery. Source: https://ro.wikipedia.org/wiki/Alexandru\_Moruzi\_(chirurg)
- 4. Dem. O. Vasiliu (1903-1989) was a graduate of the Faculty of Medicine in Bucharest, who completed his doctoral thesis in 1931. At the end of the same year, he took a scholarship to specialise in neurosurgery in the USA. In 1934, upon returning to Europe, he finalised his training through short but intense placements in the neurophysiology laboratories of Oxford and Cambridge, in the Parisian neurosurgery clinics of Professors Th. De Martel and Clovis Vincent. From 1935 until the end of his professional activity, he performed neurosurgical operations at the Witting Hospital in Bucharest.
- 5. Maria Niculescu (1893-1987) started her medical studies in 1917 at the Faculty of Medicine in Bucharest. She transferred to the Faculty of Medicine in Paris in 1919. Maria Niculescu achieved her out-and-inpatient internships through a competitive examination. She specialised in neurology and histopathology under the guidance of Professors Octave Crouzon, Pierre Marie, and Charles Foix, neurologists, as well as histopathologist Léon Bernard. In 1924, Maria Niculescu returned to Bucharest, where she worked as an assistant at the Clinic of Neurology headed by Professor Gheorghe Marinescu at Colentina Hospital. Thanks to the spiritual and professional ties between the Bagdasar and Niculescu families, Dr. Maria Niculescu assisted Dr. Bagdasar in 99 neurosurgical operations between 1934 and 1940.
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