

Commemoration of the centenary of the birth of Mario Milletti (1914–1959), co-founder of *Acta Neurochirurgica*

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The year 2014 marks the centenary of the birth of Mario Milletti, an Italian neurosurgeon and a pioneer of modern neurosurgery in Italy. In 1950, together with the Austrian Wolfram Sorgo, he founded *Acta Neurochirurgica*. For this reason, I believe a short commemoration in this journal is appropriate.

Milletti (Fig. 1) was born in Pescia (Pistoia) on 29 April 1914, and he graduated with a degree in medicine from the University of Bologna. Early in his career, he devoted himself first to histology and embryology and then to pathologic anatomy (for several months in 1936 and in 1937, he attended the Institute of Pathology at the University of Leipzig under Werner Huech's guidance); he wrote various works, 32, on histopathological topics, among which those concerning experimental modifications of liver cells are of particular importance. For a few years, he devoted himself to general surgery and was an assistant at the Surgical Clinic of Bologna University, first under the guidance of Raffaele Paolucci and then under the leadership of Gherardo Forni; his scientific production in the field of general surgery consists of 15 papers.

His work in neurosurgery began in 1942, at the age of 28 years. In 1942–43, he attended the Neurosurgical Clinic of Berlin with Wilhelm Tonnis, then the Neurosurgical Clinic in Stockholm with Herbert Olivecrona. In 1946, he spent 9 months at the Neurosurgical Clinic of Manchester with Sir Geoffrey Jefferson. Under the guidance of these masters of neurosurgery, Milletti improved his knowledge of diagnostic arteriography (with Tonnis), ventriculography and pneumoencephalography (with Olivecrona) as well as

the surgical techniques for various neurosurgical diseases; in particular, in Manchester with Jefferson he was especially interested in cerebral aneurysms. In 1949–50, he visited the major neurosurgical centers in the United States. From 1947, Milletti was head of the Institute of Neurosurgery “Cesare Cavina” at the Maggiore Hospital in Bologna. He was one of the nine founders of the Italian Society of Neurosurgery (Turin, 29 May 1948) and a member of a number of Italian and foreign scientific associations. In 1950, he organized the “Neurochirurgicum Symposium” in Bologna, the first international neurosurgery meeting ever held in Italy.

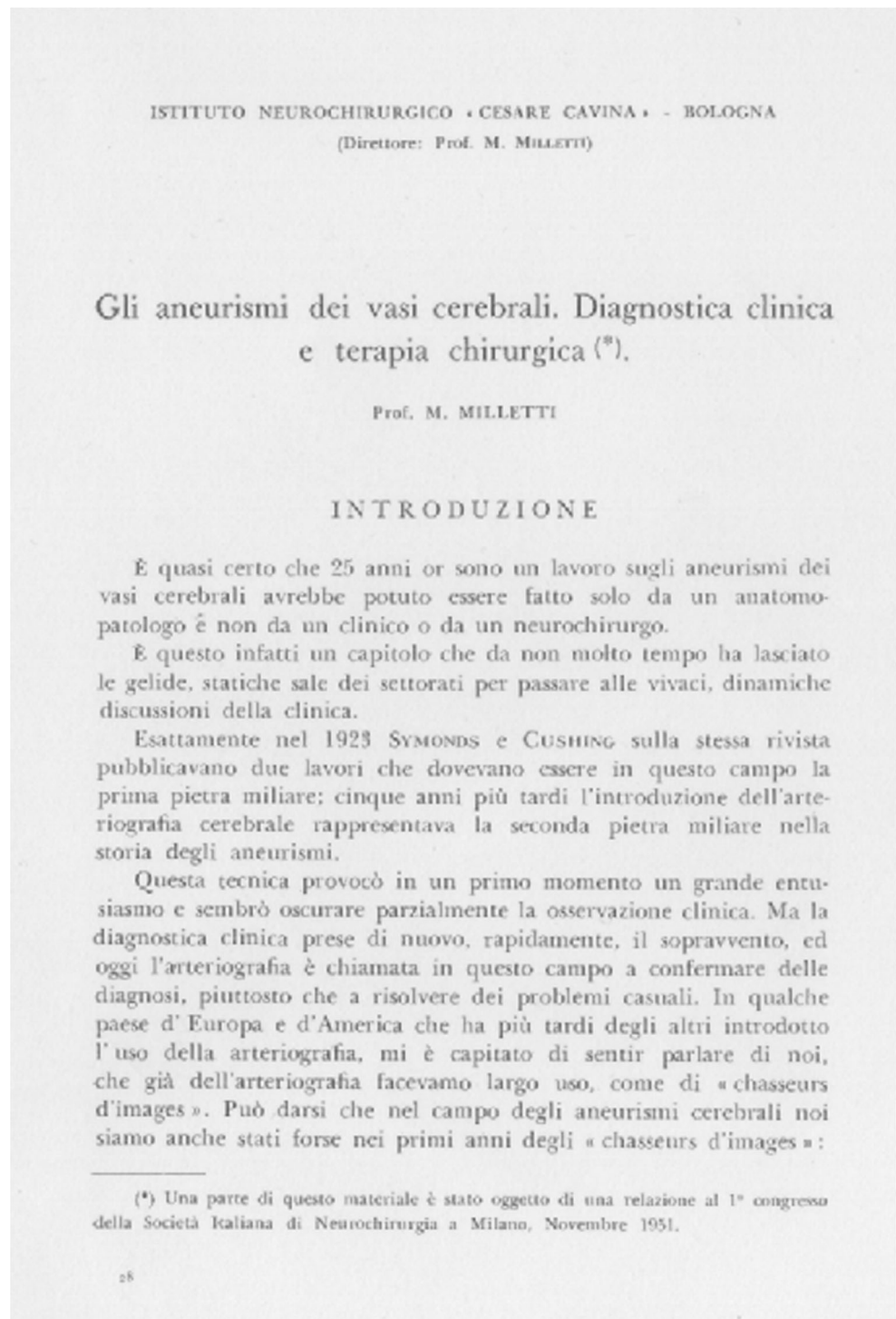
In November 1951 at the first Congress of the Italian Society of Neurosurgery, he was a speaker on the topic of



Fig. 1 Mario Milletti

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Fig. 2 Title page of Milletti's work, "Aneurysms of cerebral vessels. Clinical diagnosis and surgical treatment"



cerebral aneurysms. Milletti was very interested in saccular aneurysms, a subject on which he published several works [7, 9, 10, 14, 15] outlining all aspects of aneurysms. Figure 2 shows the title page of a long article, 216 pages, entitled "Aneurysms of cerebral vessels. Clinical diagnosis and surgical treatment," published in 1952 [15], in which the author reports and expands on the lecture delivered the

year before at the first Congress of the Italian Society of Neurosurgery. Some of the other papers reported cases presenting special features, such as multiple aneurysms [3, 4] or aneurysms of the optical-chiasmatic region [8]; Milletti reported cases he had observed at his Institute in Bologna and during his stays in Berlin, Stockholm and Manchester.

Fig. 3 Title page of *Acta Neurochirurgica* (1950), Suppl. 1



In the context of vascular diseases, two interesting works on thrombosis of the internal carotid artery in the neck [11] and of the posterior cerebral artery [18] should be pointed out. Milletti was interested in many other aspects of neurosurgical pathology, as is proved by his scientific works on brain tumors [23, 24], pediatric neurosurgery [21, 27, 28, 31], functional neurosurgery [19, 22, 26, 30] and other fields [16, 20, 29, 32].

Certainly he was very interested in diagnostic cerebral angiography, the subject of some of his publications [5, 6, 17, 25] and of a monograph [12]. His most important and best known work is probably a monograph, 79 pages long, published in 1951 in the first Supplement to *Acta Neurochirurgica* (Figs. 3 and 4a, b), dedicated to diagnostic arteriography of brain tumors [13]. In this, Milletti, based on 203 cases of cerebral tumors examined by means of angiography,

investigated the possibility of establishing a differential diagnosis between different histological types, concluding that this is possible in an high percentage of glioblastomas and meningiomas.

Due to a serious illness, Mario Milletti died in Bologna in March 1959 at the age of 45 years. He was commemorated by Filippo Caramazza on 29 February 1960 at the Medical Society of Bologna [1] and also briefly mentioned by Tonnis in *Acta Neurochirurgica* [33]. In a speech celebrating the 25th anniversary of the foundation of the Italian Society of Neurosurgery, Paolo Conforti, then president of the Society, said: “*Mario Milletti and Marino Quarti Trevano* (another founding member who died prematurely) *are to all an example of the life, study, technique, and dedication to our discipline*” [2].

Erster Teil.

Einleitung.

Es ist bekannt, daß die Tumoren des Zentralnervensystems, und insbesondere die Gehirntumoren, vergleicht man sie mit den in anderen Teilen des Organismus vorkommenden Tumoren, ein durchaus eigenes Verhalten erkennen lassen. Kranke mit Gehirntumoren liefern dem Chirurgen nur einen geringen Teil der klinischen Symptome, die ihn die Natur des Tumors, seine Gutartigkeit oder Bösartigkeit feststellen ließen. Dieser diagnostische Mangel muß sich in seiner ganzen Schwere auf die klinische Prognose und auf das auswirken, was der Operationsplan sein könnte.

Es war logisch, daß der Neurochirurg nach einem Mittel suchte, diese Lücke zu decken. Die Ventrikulographie war nicht in stande, hier mehr als eine nur beschränkte Unterstützung zu bieten. Aber die Gehirnangiographie, von der man sich im ersten Augenblick nur die Möglichkeit einer Diagnose auf Lokalisierung versprochen hatte, erwies bald ihre Eignung, Daten zu liefern, die über die Feststellung des Tumorsitzes hinaus für eine Diagnose auf dessen Natur nützlich sein konnten.

Diese von Moniz erkannte Möglichkeit wurde in den folgenden Jahren von Moniz selbst, von seinem Schüler Almeida Lima und von Tönnis und seiner Schule Schritt für Schritt studiert. Die Schlußfolgerungen, zu denen die Neurochirurgen gelangt sind, stimmen heute ziemlich miteinander überein und gestatten die Möglichkeit einer Diagnose auf die Natur des Tumors im weiteren Sinn, nämlich ob es sich um einen gutartigen oder um einen bösartigen Tumor handelt. Aber hinsichtlich der Details, auf die eine solche Diagnose zu stützen ist, und vor allem hinsichtlich der Möglichkeit, zu einer genaueren Diagnose vorzudringen, indem man die verschiedenen, sei es gut- oder bösartigen, Tumorformen radiographisch abscheidet, darüber geht die Meinung der Neurochirurgen auseinander.

Ziel der Arbeit.

Ziel dieser Arbeit ist es, das in den Jahren 1937 bis 1942 an der Neurochirurgischen Universitätsklinik in Berlin gesammelte reiche Material unter dem Gesichtspunkt dieser Möglichkeit zu analysieren. Vor allem soll versucht werden, aus der minutiösen Prüfung der studierten Fälle, die in Tabellen einzeln beschrieben sind, jene radiographischen Zeichen herauszuarbeiten, die sich mit größerer Häufigkeit darstellen und daher eine größere Bedeutung in der Differentialdiagnose annehmen.

Die Möglichkeit, die Diagnose auf Bösartigkeit oder Gutartigkeit einer Neubildung mit einer gewissen Sicherheit stellen zu können, ist von größter

Millett, Gehirngeschwülste.

1

M. Milletti, *Die Differentialdiagnose der Gehirngeschwülste Durch die Arteriographie*
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Fig. 4 a, b First and second pages of *Acta Neurochirurgica* Suppl 1

Conflicts of interest None.

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