250 years after Morgagni (1682-1771), author of the masterpiece *De Sedibus et Causis Morborum*, and his contributions to neurology development

250 anos depois de Morgagni (1682-1771), autor da obra-prima *De Sedibus et Causis Morborum*, e de suas contribuições para o desenvolvimento da neurologia

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1 INTRODUCTION

Giovanni Battista Morgagni (1682-1771) is recognized as the father of modern anatomical pathology\(^1\). Ten years before his death, 250 years ago, he published his monumental five-volume book *De Sedibus et Causis Morborum per Anatomen Indagatis* (*On the Seats and Causes of Disease*)\(^2\), which contributed to the current experience in neuroscience. He was one of the pioneers of anatomoclinical method, based on the correlation between the clinic and anatomic lesions, that was essential for neurology development\(^1\).

2 OBJECTIVES

To describe the relevance of Morgagni’s legacy to the development of neurology.
3 METHOD

A comprehensive, critical and objective analysis of the current knowledge about Giovanni Battista Morgagni employing a narrative literature review.

4 RESULTS

Morgagni was born in Forli, Italy. He graduated in Medicine from the University of Bologna in 1701. In 1707 moved to Venice and worked with the anatomist Giovanni Domenico Santorini (1681–1737). In 1715 he was appointed as the first chair of anatomy at the University of Padua.4

He was inspired by ideas from masters as Antonio Maria Valsalva (1666-1723) and Marcello Malpighi (1628-1694) and established a disruptive landmark in medical thought at the time, then based on the theory of humors proposed by Hippocrates and Galen, that claimed that the diseases would result from the imbalance of the four humors of the organism (blood, phlegm, yellow and black bile). In his masterpiece De Sedibus et Causis Morborum per Anatomen Indagatis he elaborates the modern concept of anatomopathology, in which the anatomical study is a tool to identify the seat and the causes of diseases. Clinical symptoms are in the author’s words, “the cry of the suffering organs”. In his understanding, the identification of the site of the lesion is essential for the diagnosis and treatment of diseases, and created the anatomoclinical method. He postulated that the phenomenological manifestation would result from an alteration with an identifiable anatomical focus and this identification would allow a better therapeutic approach. His ideas were recognized by physicians such as Rudolph Virchow (1821-1902), who highlighted “…only through and by Morgagni was the dogmatism of the old schools completely shattered and that with him new medicine begins”, and inaugurated a chain that would come to be followed by Bichat, Virchow, and Rokitansky. This method was essential for the studies developed by Jean-Martin Charcot (1825-1893), the modern neurology father, who was elected to an entirely new Chair in Europe (1882), of Clinical Diseases of the Nervous System.

In the field of neuropathology, Morgagni contributed correlating neurological symptoms with anatomic lesions. Morgagni’s masterpiece is divided into 5 volumes, in which he described for the first time anatomical changes of several neurological pathologies correlating with signs and symptoms. Each book embraced a different category: Diseases of the Head, Diseases of the Thorax, Diseases of the Abdomen, Diseases of a General Nature and Disease requiring Surgical Treatment, and Supplement.
In the book I of the first volume, *Of Disorders of the Head*, elucidated conditions such as headache, epilepsy, hydrocephalus, subdural and epidural hematoma, skull fractures, ischemic and hemorrhagic stroke, aneurysms cerebral, subarachnoid hemorrhage, vascular dissections, brain tumors, venous thrombosis, spinal injuries, among other¹⁴, and he was the first to demonstrate brain injuries causing contralateral palsy³. He found brain abnormalities such as hyperemia and hydrocephalus in patient with epilepsy and introduced the use of trepanation to treat patients with large hematomas⁴.

5 CONCLUSIONS

Morgagni started a new era in medicine that contributed to the birth of neurology, through the description of several anatomical alterations of neurological diseases, and also through the foundation of the anatomoclinical method, essential for neurology development. Morgagni's works strengthened the relationship between diagnosis, treatment and anatomic changes, establishing the anatomoclinical method on a more solid basis³⁶. Until today, neurological diagnoses remain firmly anchored in the correlation between clinical signs and focal lesions¹.

**Keywords:** Morgani, Seats and Causes of Disease, Giovanni Battista Morgani
REFERENCE


