

Achille Alexandre Souques (1860–1944)

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Achille Alexandre Souques (1860–1944) is one of the most famous French neurologists of the early 20th century [1, 2, 6]. He was born in Peyre, a small village in the south of France, studied medicine in Paris, met Charcot at the Salpêtrière Hospital, and became his last resident (intern). When Charcot died in 1893, Souques was appointed assistant professor by Brissaud and subsequently by Raymond. In 1898 he became a hospital consultant (*médecin des hôpitaux*) and worked successively at the Charité, the Hôtel-Dieu, the Ivry and the Bicêtre Hospital. He returned to the Salpêtrière Hospital in 1917, when he was appointed Professor of Neurology. With Pierre Marie, Babinski and others he had founded the Paris Neurological Society in 1899. Souques was elected at the *Académie de Médecine* in 1918. He was considered one of the best teachers in the art of performing the neurological examination. Among his pupils were de Martel and Clovis Vincent, who developed neurosurgery in Paris, and also Foix, Barré, Baruk and Alajouanine [1, 2, 6]. In 1925, Souques retired from the

Salpêtrière Hospital. He died from cancer in 1944 in Sevron, a small city close to Paris.



Picture of Souques (by Henri Manuel)

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Souques made important observations in many fields of medicine and above all in neurology. Among them, we should mention *nanisme hypophysaire*, a variety of infantilism associated with dwarfism, secondary to a pituitary tumour, and the *ivory vertebra*, a peculiar form of spinal metastasis that can be diagnosed by X-rays [1]. With regard to the neurological examination, he described several signs [1, 6]. One sign bears his name: *signe des cils de Souques* (Souques' eyelashes sign), in mild degrees of facial

weakness. In this case, involvement of the orbicularis oculi muscle can be detected when the patient is asked to close the eyes forcefully: the eyelashes on the affected side are less covered by the eyelids and thus appear longer than on the other side. Souques also studied speech and language and described *palilalia* in 1908 in a stroke patient with left hemiplegia [7]. In this syndrome, patients cannot help repeating the last one or two words of a sentence, often with increasing rapidity and decreasing volume. Souques distinguished palilalia from echolalia (repeating others) and palilogia (an oratorical device). Palilalia is frequently seen in stroke patients, especially with pseudobulbar palsy and in parkinsonian syndromes.

In 1915, Souques coined the term ‘camptocormia’, with Mrs. Rosanoff-Saloff, to describe the stooped posture of the trunk, disappearing on lying down, in soldiers injured during trench warfare [10]. They assumed the disorder could be caused by organic injury, but also by neurosis. Indeed, some soldiers had camptocormia from mental stress in anticipation of the battle, while others were afraid to suffer again from a previous spinal injury. Even afterwards, patients might remain bent forward for a long time. Recently, several authors have renewed the interest in this syndrome. Camptocormia is not only a psychogenic disorder, but is also described in basal ganglia disorders such as Parkinson’s disease and bilateral lenticular lesions in association with segmental dystonia, as well as in myopathies and amyotrophic lateral sclerosis [4, 5].

Souques’ work on parkinsonian syndromes is remarkable. In parallel with Cruchet in Bordeaux and Von Economo in Vienna, Souques was quick to recognize the link between encephalitis lethargica, acute chorea and the secondary appearance of parkinsonism. In his famous 1921 exhaustive review, he updated the scientific knowledge on Parkinson’s disease and postencephalitic parkinsonian syndromes [8]. The sections on the anatomy and physiology of basal ganglia and on the pathology of Parkinson’s disease were particularly well summarized. Souques acknowledged the important findings made on the pathology of Parkinson’s disease by Trétiakoff in Pierre Marie’s laboratory at the Salpêtrière Hospital in 1919: loss of neurons in the substantia nigra, with inclusion bodies in some of the surviving cells. In the chapter dealing with the clinical signs, Souques considered that postencephalitic parkinsonism was indistinguishable from idiopathic Parkinson’s disease and added two original contributions: first, disappearance of automatic and associated movements,

such as loss of the arm swing during walking; second, paradoxical kinesis (*kinésie paradoxale*). Souques used this expression for patients who generally could not move but were suddenly able to walk, or even to run. This phenomenon could also be seen in speech. Today, this phenomenon is still a subject of scientific research [3].

Souques was also an expert in art and history. After he retired in 1925, he spent a lot of time visiting museums in Paris and many other cities throughout Europe. In 1936, he published an authoritative historical book, *Étapes de la neurologie dans l’antiquité grecque* [9]. He summarized the knowledge and practices of neurology in ancient Greece at the time of Hippocrates and highlighted the subsequent pioneering work of Galen, Herophilus and Erasistratus in experimental neurology and clinicopathological studies. He showed, for instance, that jacksonian epilepsy and postdiphtheritic paralysis were well known to Hippocrates.

As a person, Souques was pleasant, unassuming and kind, beloved by all his colleagues, pupils and friends [1, 2, 6].

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