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HISTORICAL NOTE

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Pierre Mollaret (1898–1987) and his legacy to science

Pierre Mollaret was a French physician who made various significant contributions to neurology and infectious diseases. He was born in Auxerre, France in 1898. In 1916, he began to study medicine and science but his education was interrupted by World War I. During 1917 and 1918, he served as an assistant physician and was decorated with the Croix de Guerre when the war ended. He resumed his medical studies in 1920 and received his degree in science in 1926. During his education, one of his teachers was Professor Georges Charles Guillain (1876–1961; Guillain of the Guillain–Barré syndrome), with whom Mollaret worked for many years.

In 1931, Guillain and Mollaret described anatomical connections related to palatal myoclonus.¹ This functional connection, composed of the contralateral dentate nucleus, ipsilateral red nucleus and ipsilateral inferior olivary nucleus, is referred to as the Guillain–Mollaret triangle.² In fact, it is not an anatomical triangle but a triangular circuit connecting the aforementioned structures. In 1935, Trelles (1904–1990), a Peruvian neurologist, reported that isolated lesions of the inferior cerebellar peduncle never cause palatal myoclonus, as anatomically there are no direct connections between the inferior olivary nucleus and the contralateral dentate nucleus. Fibres from the inferior olivary nucleus project first to the cerebellar cortex (olivocerebellar tracts) and then to the dentate nucleus. He described these connections as the dentato-rubral-olivary pathway.³

In the central nervous system, degeneration of an anatomical structure is usually characterised by neuronal loss replaced by proliferation of glial elements. Degeneration of the inferior olivary nucleus was described for the first time in 1887 by Hermann Oppenheim (1858–1919) from anatomical specimens.⁴ Hypertrophic olivary degeneration is considered a unique type of degeneration because it is associated with enlargement of the affected structure. Hypertrophic olivary degeneration is a rare finding secondary to focal lesions, usually an insult, of the brainstem involving a functional system and is considered a transneuronal degeneration. Transneuronal degeneration occurs only from a lesion that results in disconnection of the pathway and loss of neuronal input. While hypertrophic olivary degeneration can be caused by any lesion involving the aforementioned structures, it is typically seen with focal lesions involving the ipsilateral central tegmental tract, the contralateral superior cerebellar peduncle or the dentate nucleus.

In 1944, Mollaret also described three patients with recurrent benign endotheliocytic aseptic meningitis.⁵ He wrote several subsequent papers on the condition. The European literature added additional cases, but reports of this disease did not appear in the English language medical literature until 1972.⁶ It has also been called benign recurrent aseptic meningitis, benign recurrent meningitis, benign recurrent endothelial meningitis, benign recurrent endothelial–leukocytic meningitis and recurrent aseptic meningitis.⁷

Mollaret was also an epidemiologist. He held the chair of Infectious Diseases at the Claude Bernard Hospital in Paris and contributed towards the care of a large number of polio victims suffering from respiratory paralysis.⁸ Mollaret as a neurologist and epidemiologist made innovative contributions to science. He died in Montgeron, near Paris, in 1987, and left behind many articles and books.

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