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The anatomical variations of the sciatic nerve during dissection classes: three different case reports

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The sciatic nerve (SN), also called the ischiatic nerve, is the longest and largest nerve in the human body. This wide nerve originates from the lumbosacral plexus (L4-S3) roots, and exits from the pelvis closely below the piriformis muscle (PM). However, many variations of the SN are present concerning its relationship with the PM. Indeed, in this regard, these anatomical variations were recorded and classified by Beaton and Anson since the first one in 1937 [1].

In the present study, we describe two different case reports of the anatomical variations of the SN and its relationship with the PM, observed during dissection classes at the ICLO Teaching and Research Center (Verona, Italy), both in male and female bodies aged between 62 and 78 years old.

In the first case (a 62 year old male reported), it was observed the SN divided into the common peroneal nerve (CPN) and the tibial nerve (TN) that, respectively, passed between and below the PM. On the other hand, in the second case (observed in a 70 year old female), even if the SN was split into its two components, the CPN passed above the head of the PM, and the TN passed through the PM. Eventually, the third case of a 78 year old female, another case reported the TN emerging below the PM, and the CNP passed through the PM.

The anatomical variability knowledge of any part of the human body, observed by different techniques ranging from imaging to surgery or autopsy, is fundamental. Focusing on the SN and its relationship with the PM, understanding this variability is essential to effectively treat the patient with the appropriate medical approach. For example, piriformis syndrome is a rare syndrome which is one of the main causes of nondiscogenic sci-

atica, causing severe low back pain due to entrapment of SN, either by hypertrophy or by inflammation of the PM [2]. Thus, the anatomical features of each variation might be useful for the surgical treatment of piriformis syndrome.

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