Multiple Variations of the Nerves of Gluteal Region and Their Clinical Implications, a Case Report

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Abstract: Knowledge of variations of nerves of gluteal region is important for clinicians administering intramuscular injections, for orthopedic surgeons dealing with the hip surgeries, possibly for physiotherapists managing the painful conditions and paralysis of this region. Herein, we report multiple variations of the nerves of gluteal region. In the current case, the sciatic nerve was absent. The common peroneal and tibial nerves arose from sacral plexus and reached the gluteal region through greater sciatic foramen above and below piriformis respectively. The common peroneal nerve gave a muscular branch to the gluteus maximus. The inferior gluteal nerve and posterior cutaneous nerve of the thigh arose from a common trunk. The common trunk was formed by three roots. Upper and middle roots arose from sacral plexus and entered gluteal region through greater sciatic foramen respectively above and below piriformis. The lower root arose from the pudendal nerve and joined the common trunk. These variations were seen in the right gluteal region of an adult male cadaver aged approximately 70 years. Innervation of gluteus maximus by common peroneal nerve and presence of a common trunk of inferior gluteal nerve and posterior cutaneous nerve of the thigh make this case unique. The variant nerves may be subjected to iatrogenic injuries during surgical approach to the hip. They may also get compressed if there is a hypertrophy of the piriformis syndrome. Hence, the knowledge of these variations is of importance to clinicians, orthopedic surgeons and possibly for physiotherapists.

Keywords: gluteal region, multiple variations, nerve injury, sciatic nerve

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