The Variation of the Inferior Gluteal Artery Origin

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Abstract : The inferior gluteal artery is a prominent branch of the anterior trunk of internal iliac artery. It escapes from the pelvic cavity through the greater sciatic foramen below the lower edge of piriformis. In gluteal region, it provides several muscular branches to gluteal maximus and articular branch to hip joint. Further, it provides sciatic branch to sciatic nerve. Current study investigates the origin of the inferior gluteal artery of 41 cadavers in Centre for Anatomy and Human Identification, University of Dundee, UK. It arose from the anterior trunk in 37.5% independently and 45.7% dependently as with the internal pudendal artery. Therefore, it arose from the anterior trunk in 83.2%. However, it found to be as a branch of the posterior trunk of internal iliac artery in 7.7% which is either a direct branch in 6.2% as or indirect branch in 1.5%. Beside the inferior gluteal artery arose with internal pudendal artery as from GPT of anterior division in 45.7%, it arose from the GPT arising from the internal iliac artery bifurcation site in 1.5%. Further, the inferior gluteal artery arose from the trunk with internal pudendal and obturator arteries in 1.5% referred as obturatogluteopudendal trunk. Occasionally, it arose from the sciatic artery in 1.5%. In few cases, the inferior gluteal artery found to be congenital absence in 4.6% which is compensated by the persistent sciatic artery. Therefore, radiologists have to aware of the origin variability of the inferior gluteal artery to alert surgeons. Knowing the origin of the inferior gluteal artery may help the surgeons to avoid iatrogenic sciatic neuropathy in pelvic procedures such as removing prostate or of uterine fibroid. Further, it may also prevent avascular necrosis of femur neck as well as gluteal claudication.

Keywords : inferior gluteal artery, internal iliac artery, sciatic neuropathy, gluteal claudication
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