The Variation of the Inferior Gluteal Artery Origin in United Kingdom Population

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Abstract : The inferior gluteal artery is a largest branch of the anterior division 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. Present study explores the origin of the inferior gluteal artery of 41 cadavers in Centre for Anatomy and Human Identification, University of Dundee, UK. It arose directly from the anterior division of internal iliac artery in 39% and 45.7% indirectly as with the internal pudendal artery. Further, it arose indirectly from anterior division with internal pudendal and obturator arteries in 1.5% referred as obturatogluteopudendal trunk in 1.5%. Therefore, it arose from the anterior division of the internal iliac artery in 86.2%. However, it found to be as a branch of the posterior division of internal iliac artery in 7.7% which is either a direct branch in 6.2% as or indirect branch (as from the sciatic artery) in 1.5%. It neither arose from anterior or posterior division in 1.5% as from gluteopudendal trunk arising from the internal iliac artery bifurcation site. 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 or gluteal claudication due to prolonged ligation in pelvic procedures such as removing prostate or of uterine fibroid.

Keywords: inferior gluteal artery, internal pudendal, sciatic nerve, sciatic artery, gluteal claudication, sciatic neuopathy

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