3 - Clinical Anatomy

OC-071 - (23932) - VARIATION OF THE PROFUNDA FEMORIS ARTERY AND ITS BRANCHES – A HUMAN CADAVERIC CASE REPORT

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The profunda femoris artery (PFA) is a key vessel in the thigh vascularization. Anatomical variations of this artery carry significant clinical implications, particularly in vascular interventions and anterior hip joint approaches, where iatrogenic injuries—ranging from 0.1% to 4%—can lead to severe complications, including hemorrhage or limb ischemia. This report documents variations involving the PFA and its branches.

Routine dissection was performed on a formalin-embalmed adult male cadaver. The origin and branching of the PFA were examined using the line connecting the anterior superior iliac spine (ASIS) and pubic tubercle (PT) as a reference point, chosen to minimize distortions from post-mortem and fixation changes.

On the right side, the PFA originates medially at the level of the ASIS-PT line. Additionally, the inferior epigastric artery arises from the PFA, 3.37 mm vertically inferior to the same line. On the left, the PFA exhibits a more typical origin (52.24 mm inferiorly to the reference line). The inferior epigastric and the medial circumflex femoral arteries arise from a common trunk originating at the level of the reference line.

The bilateral presence of atypical vascular patterns, including a high medial PFA origin and aberrant origin of the inferior epigastric and the medial circumflex femoral arteries, poses important surgical and radiological concerns. Such variations may compromise procedural safety if unrecognized preoperatively.

Cadaveric dissection remains indispensable for revealing clinically relevant anatomical variations. Awareness of such variations is critical to minimize iatrogenic risk in surgical and interventional procedures and thus optimizing the outcomes of patients.

Palavras-chave : Profunda Femoris Artery, Anatomical variatons