

Origin Variability of Superior Vesical Artery

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Abstract : The superior vesical artery usually arises directly from the anterior division of the internal iliac artery. It may arise from the umbilical artery as three or four branches to supply the upper and middle parts of bladder. Current study focuses on the different origins of the superior vesical artery to provide a sufficient data for surgeons to disease iatrogenic fault. The superior vesical artery arises directly from the anterior division of the internal iliac artery in 24.5% whereas it arises indirectly as from umbilical artery in 83.7%. Further, it may arise from any branch of the anterior division as from the utrine and obturator arteries in 6.1% and in 6.3% respectively. It also shares the origin of the internal pudendal and inferior glutyeal artery as it arises from the gluteopudendal trunk in 4.1%. The superior vesical artery arises as a single, double, triple and quadruple in 69.4%, 20.4%, 8.2% and 2% respectively. In case of cystectomy for bladder cancer, surgeons have to be aware of the origin variability of superior vesical artery to prevent post-surgical complication such as intra-pelvic bleeding. Also, the as intra-pelvic bleeding has to be expected in case of hysterectomy therefore a great caution of the vesical branches arising from uterine artery has to be considered. In case of aneurysm resection of inferior gluteal artery arising from the gluteopudendal trunk, the surgeons have to be careful of the vascular supply of urinary bladder coming from above and below this common trunk as from superior and inferior vesical arteries respectively. Therefore, present study increases the awareness of clinical significance of superior vesical artery origin for surgeons to minimise the iatroginc errors.

Keywords : superior vesical artery, anterior division, internal iliac, internal pudendal, inferior glutyeal, intra-pelvic bleeding, hysterectomy, cystectomy

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