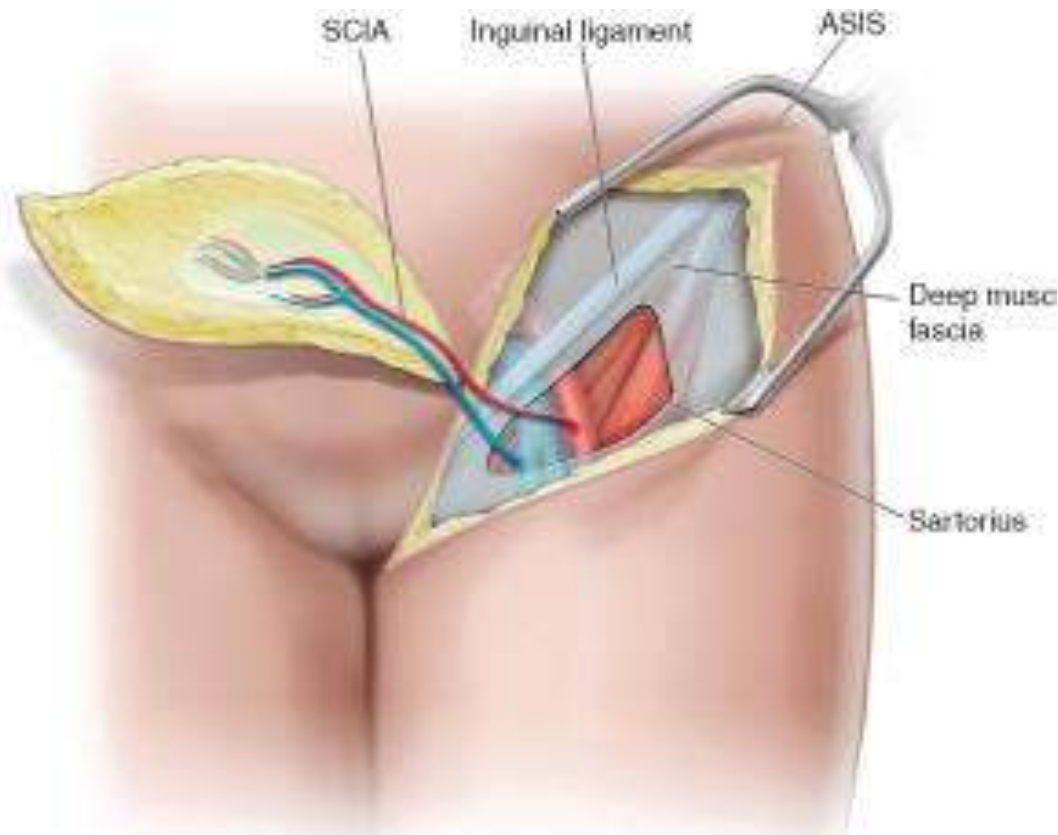


Superficial Circumflex Iliac Artery Perforator (SCIP) flap



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Vascular anatomy
&
preoperative planning



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Groin flap

- McGregor 1972
- Taylor 1973 (free flap)
- + hidden scar
- - very short pedicle
- - lymphorhea

SCIP flap



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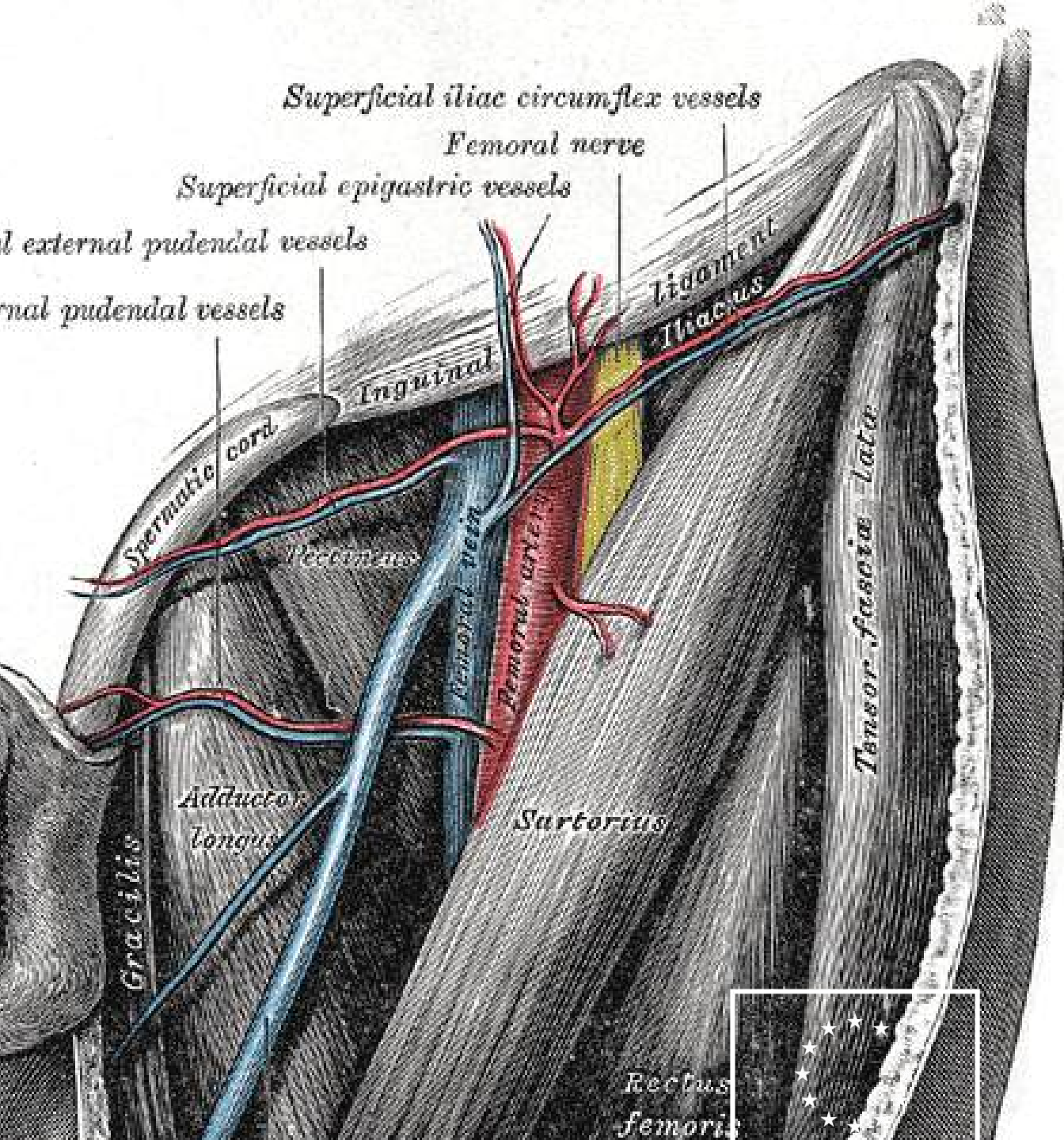
Koshima et al.2004

perforator flap elevated above deep fascia

thinner

little bit longer pedicle

concealed donor site



Vascular territory of the groin

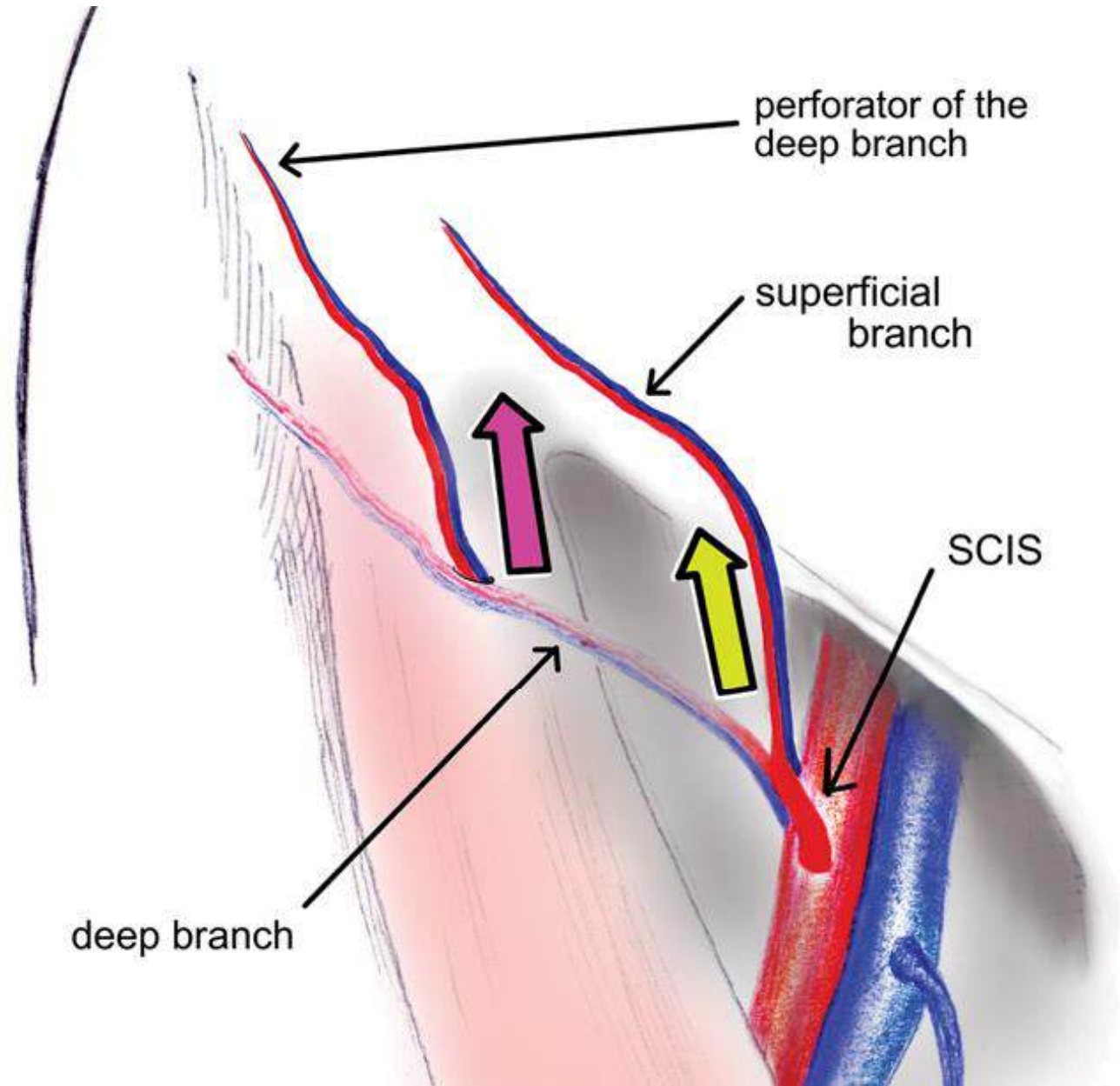
3 vascular systems

- SCIA
- SIEA
- PS



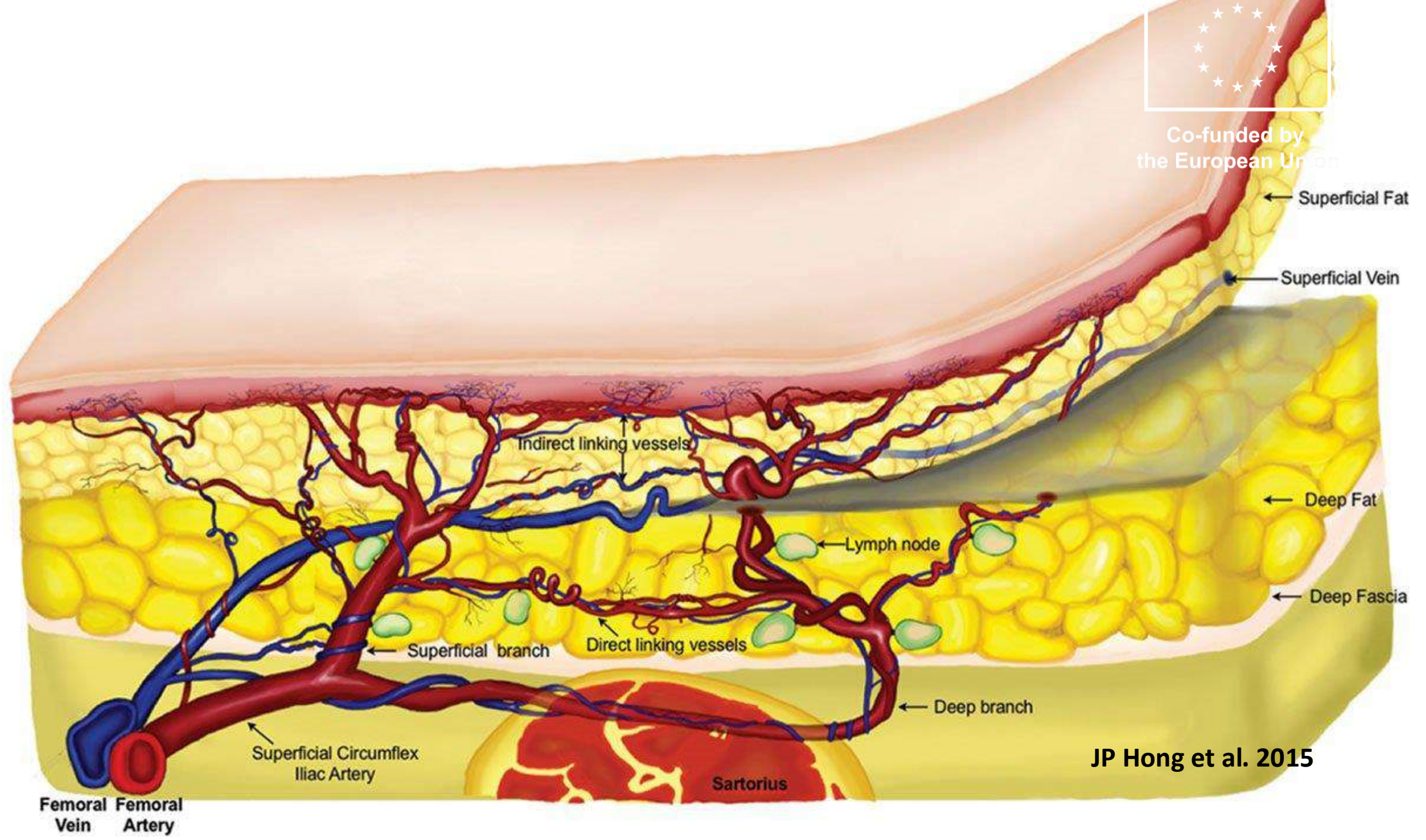
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superficial circumflex iliac artery (SCIA)



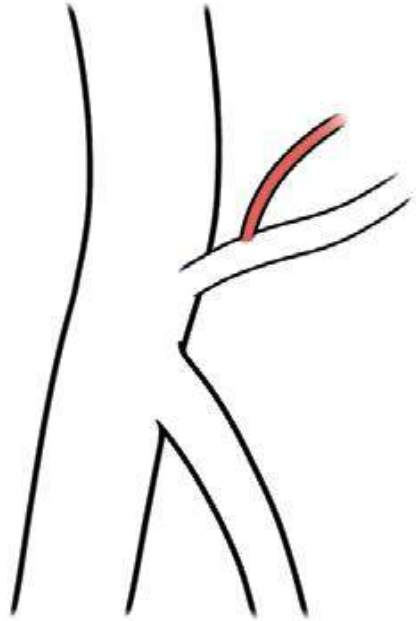


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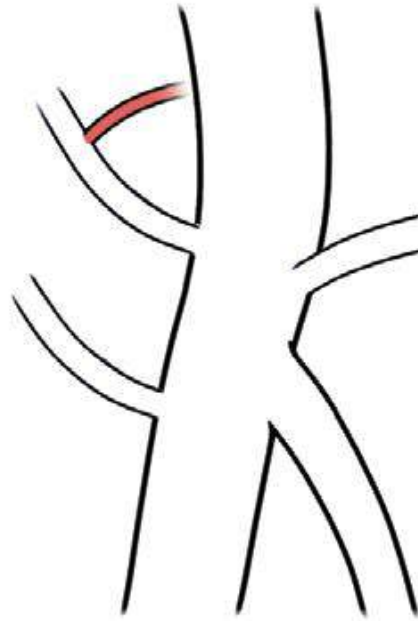


JP Hong et al. 2015

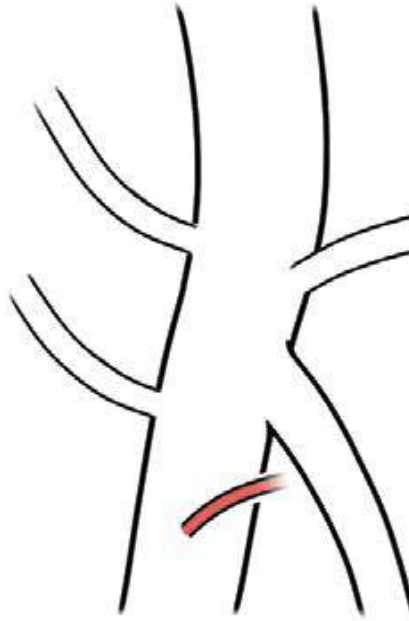
Superficial (medial) branch origin



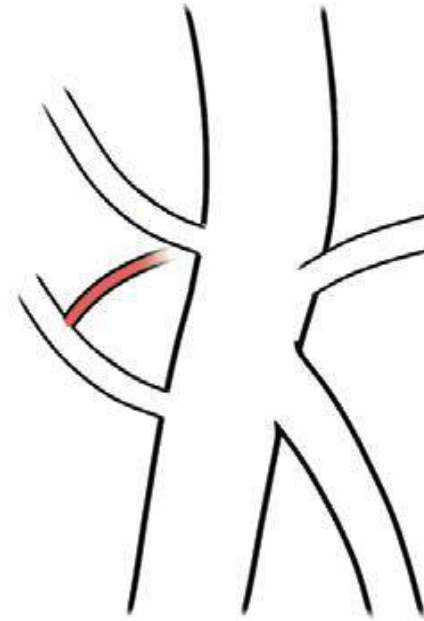
SCIA
134/142 94%



SIEA
5/142 3.5%

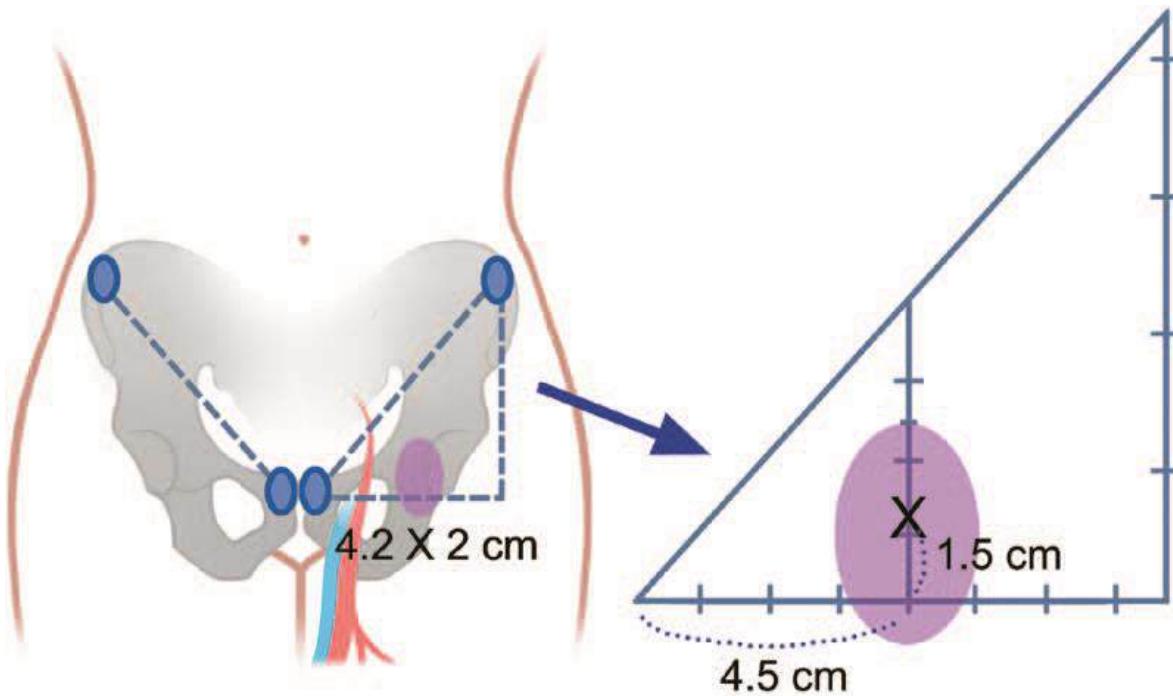


Superficial Femoral
artery
2/142 1.5%

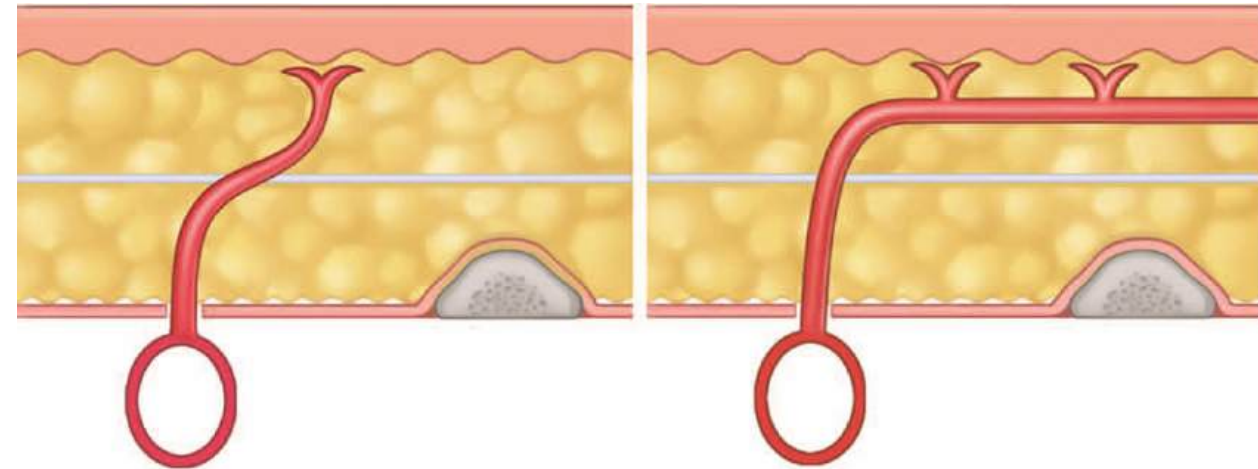


Superficial Pudendal
artery
1/142 1%

Superficial (medial) branch



Suh et al. 2017



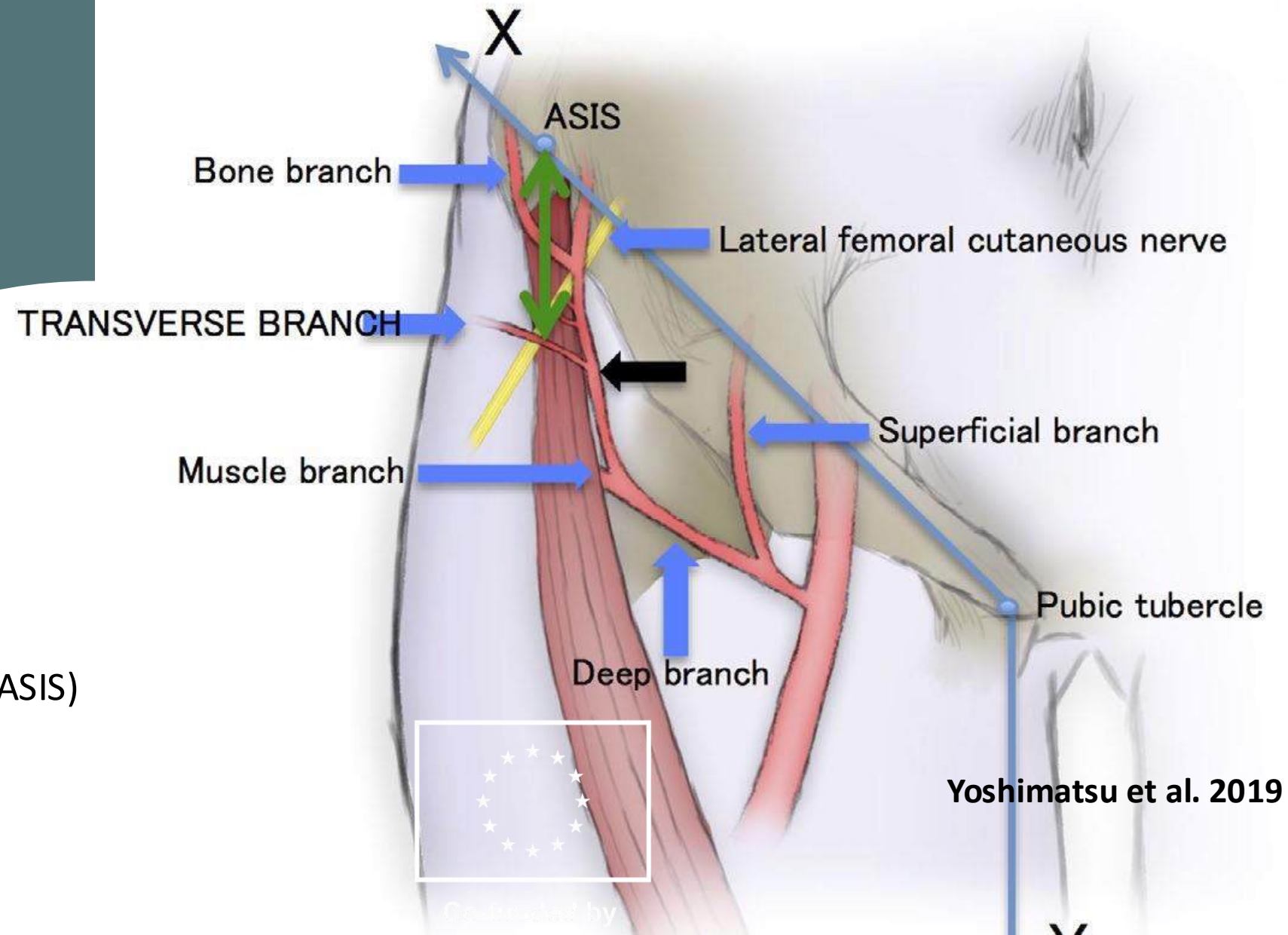
Direct anchoring type
79/142 56%

Axial type
63/142 44%

Suh et al. 2017

Deep (lateral) branch

- trace back the transverse branch (2,5cm inferiorly to ASIS)



Branches (perforators) of SCIA



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Superficial (medial)

- direct cutaneous
- easier dissection
- short pedicle
- limited flap territory
- composite - LN
- 56% anchoring type
- constant position

VS

Deep (lateral)

- intramuscular path
- more difficult to dissect
- longer pedicle
- larger territory
- composite- bone&muscle
- axial type
- non constant position

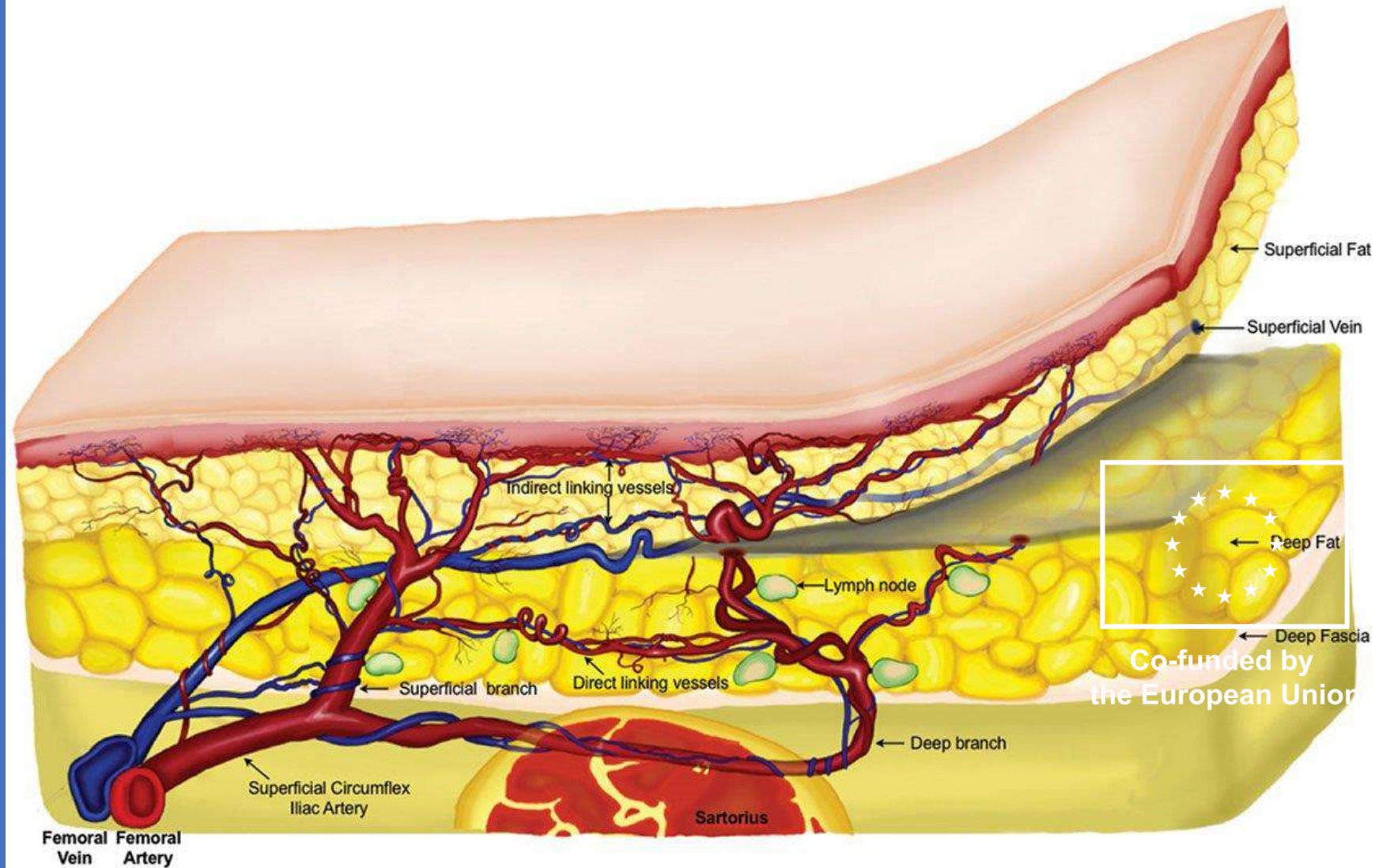
Venous drainage

superficial vein

- level of superficial fascia

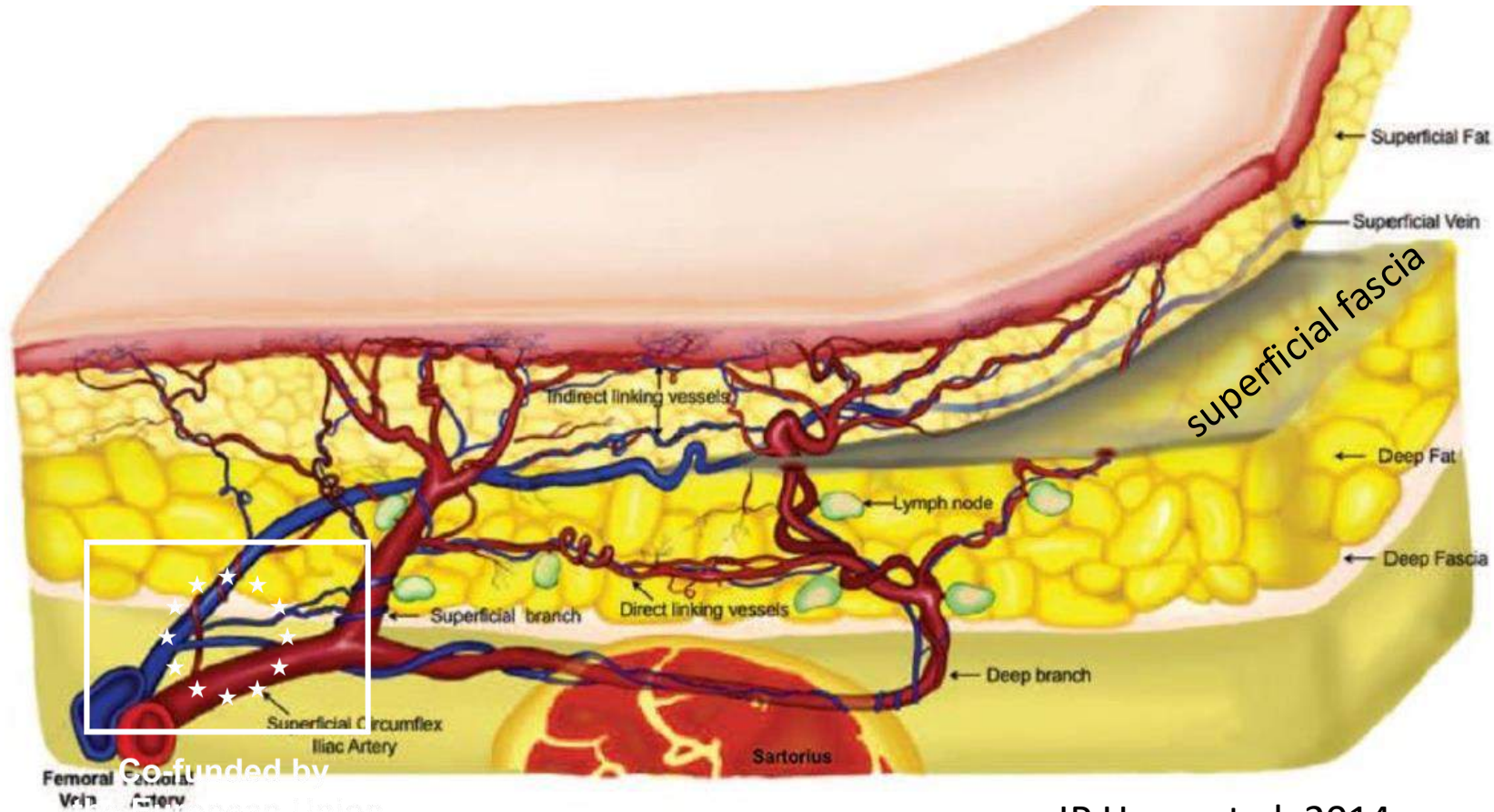
comitant veins

- drain to superficial vein



JP Hong et al. 2015

Plane of elevation

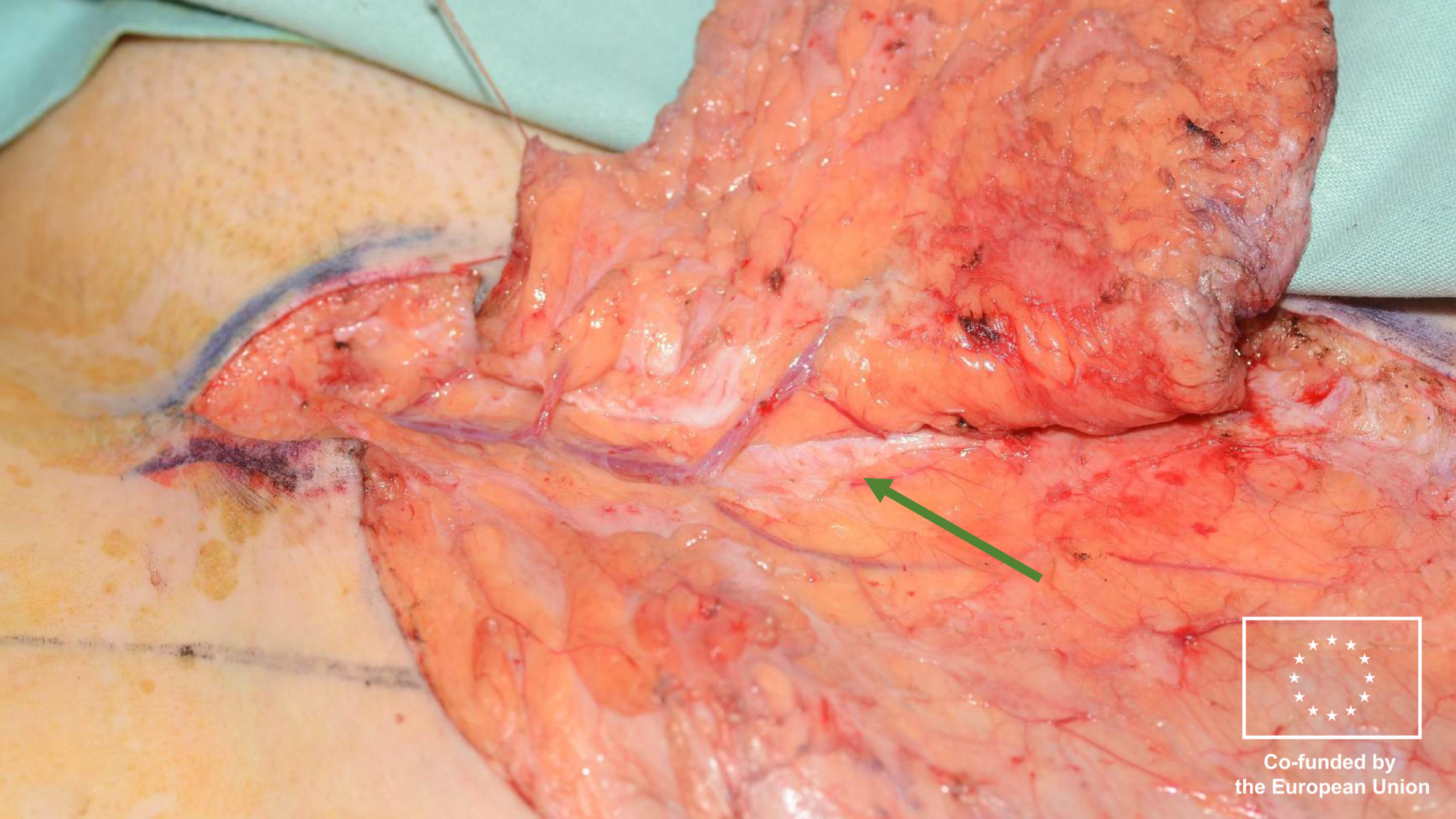


JP Hong (2014)

I Koshima (2004)

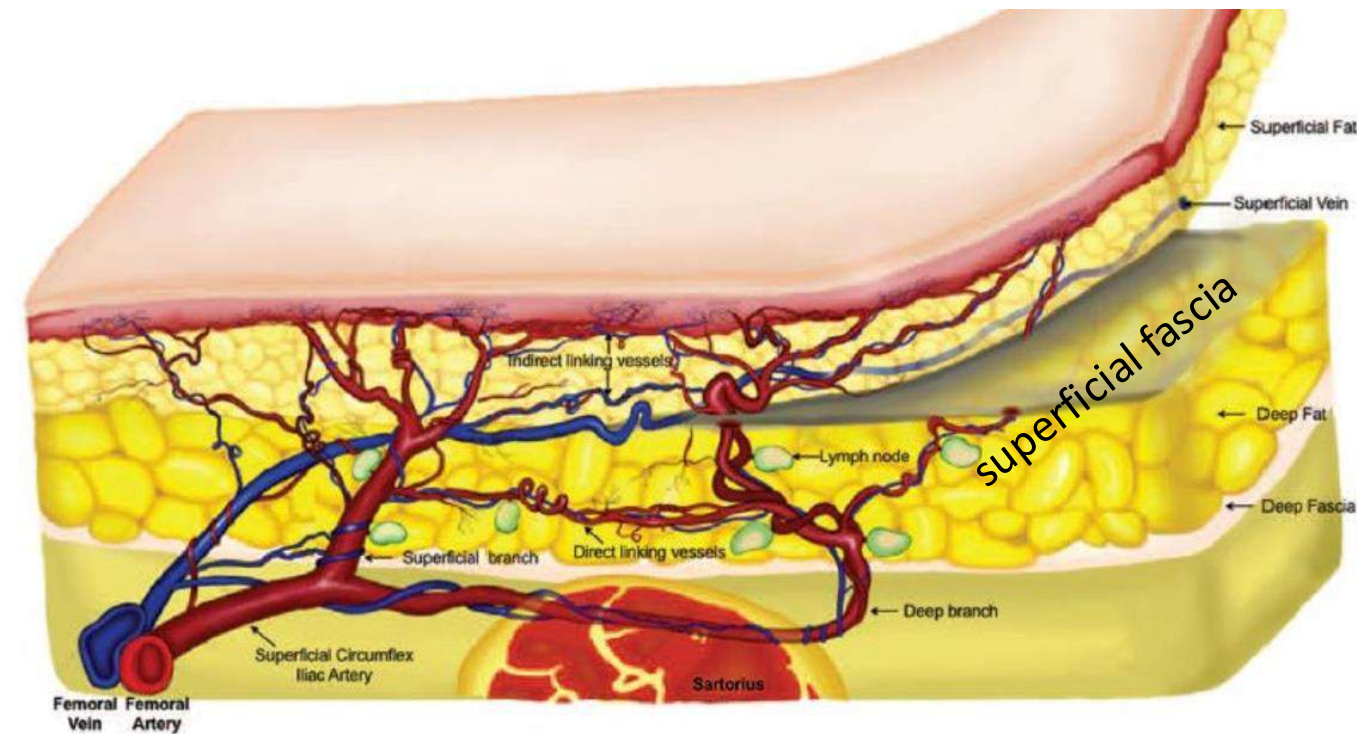
Daniel & Taylor (1973)

JP Hong et al. 2014



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ADVANTAGES of harvesting in the level of superficial fascia



JP Hong et al. 2014

thin flap (3 – 12 mm)

easily identifiable layer

almost avascular – minimal bleeding

minimal trauma to lymphatic vessels

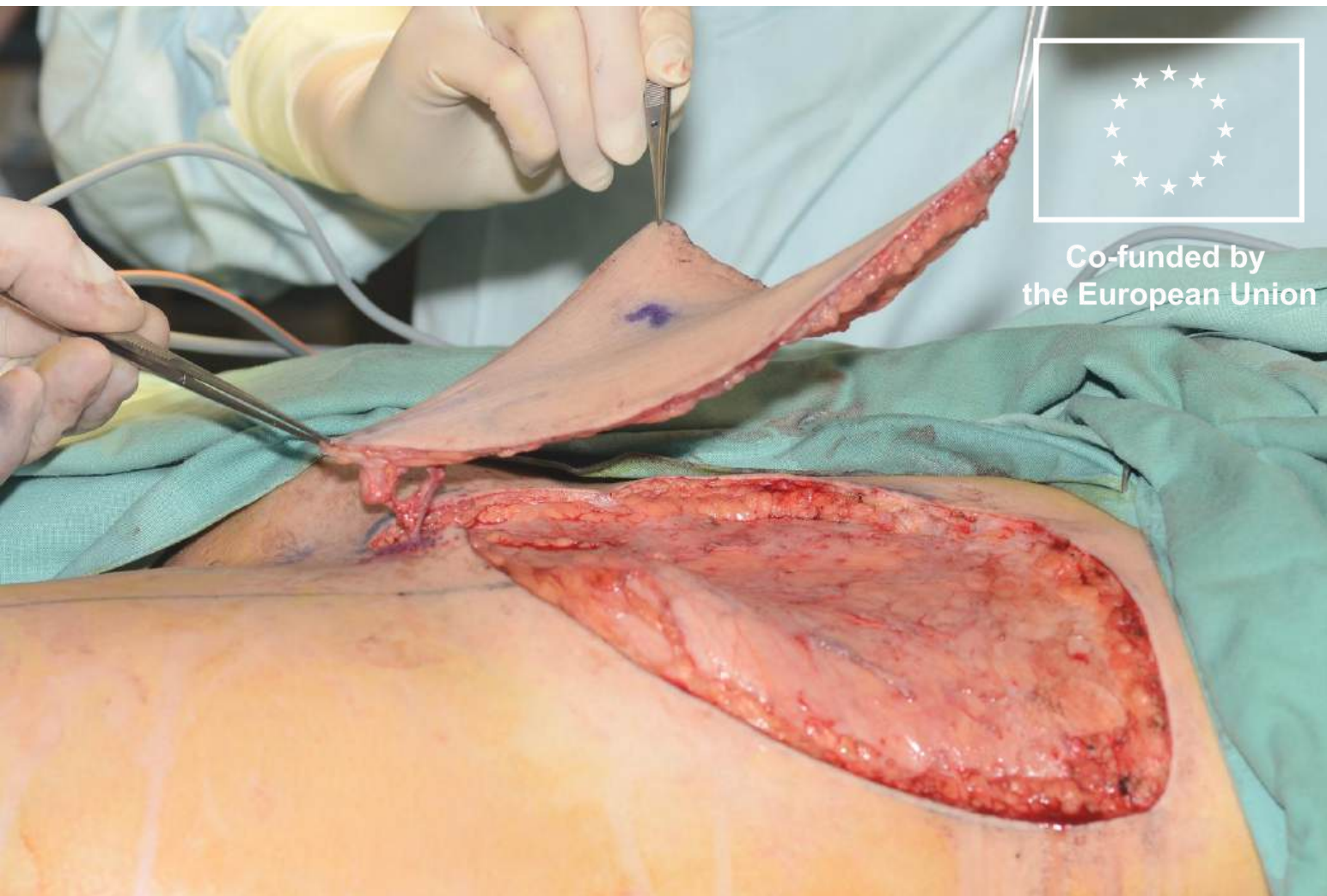
increased flap extensibility and pliability

most linking vessels are in the superficial fat

better cosmesis for donor site - deeper fat stays in situ



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Design





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Dimensions

- width to primary closure – up to 14 cm (hip flexed)
- length – up to the flank, 35 cm (both branches)
- pedicle length 5 -6 cm, \varnothing 0.8 – 1.8 mm

Potential pitfall

- Do not forget to mark vein or artery before cutting the pedicle.



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