

# Use of 8Fr Angio-Seal for closure of femoral arteriotomy following use of 8Fr and 9Fr sheaths in patients undergoing mechanical thrombectomy for acute ischaemic stroke



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# Introduction



- To assess any difference in the groin complication rate using an 8Fr Angio-Seal VIP
  - following the use of 9Fr femoral sheaths Vs
  - 8Fr sheaths

# Material and Methods



- Retrospective review from 2018 to March 2020
- Complications defined as:

Major	Minor
Pseudoaneurysm	Small haematoma (<5cm)
Device failure, further intervention	Device failure, manual compression
Retroperitoneal haematoma	
Ipsilateral Limb ischaemia	
Infection	
Haematoma requiring transfusion	
Ipsilateral DVT	

# Results



Characteristics	8Fr (n=56)	9Fr (n=105)	P value
Mean age in years (SD)	66.8 (16.4)	67.6 (14.4)	0.78
Sex (Male : Female)	40 : 16	57 : 48	0.04
Anticoagulants	6 (10.7)	9 (8.5)	0.77
Antiplatelets	0 (0)	4 (3.8)	0.29
Hypertension	22 (39.2)	53 (50.4)	0.18
Diabetes Mellitus	10 (17.8)	20 (19.1)	0.99
MT + IVT	36 (64.2)	57 (54.3)	0.24
MT alone	20 (35.7)	48 (45.7)	0.24
Ultrasound use	48 (85.7)	93 (88.5)	0.62
General anaesthetic	22 (39.2)	87 (82.9)	<0.0001

**Table 1 :** Patient characteristics (% , unless stated) in the 8Fr and 9Fr femoral arteriotomy cohorts. Students T-test used for continuous variables and Fisher's exact test used for categorical variables.

# Results



Groin Complications	8Fr (n=56)		9Fr (n=105)		P value (between 8Fr and 9Fr : between MT+IVT and MT only)
	MT + IVT (n=36)	MT only (n=20)	MT + IVT (n=57)	MT only (n=48)	
Pseudoaneurysm	1	0	0	1	1 : 1
Device failure (manual compression)	1	0	2	0	1 : 1
Retroperitoneal haematoma	0	0	0	0	1 : 1
Ipsilateral Limb ischaemia	0	0	0	0	1 : 1
Infection	0	0	0	0	1 : 1
Haematoma requiring transfusion	0	0	0	0	1 : 1
Ipsilateral DVT	0	0	0	0	1 : 1
Small haematoma (<5cm)	2	1	5	4	0.54 : 1

**Table 2 :** Comparison of groin complications in the 8Fr and 9Fr femoral arteriotomy cohorts. Fisher's exact test used for categorical variables.

# Discussion & Conclusion



- GA as expected most often used in the 9Fr sheath group
- Similar safety profile using 8Fr angioseal in 9 Fr sheaths
- Benefit of 9Fr sheath in GA cases, rapid side-port arterial line access for:
  - Invasive BP monitoring
  - Oximetry analysis during Ga