Table S1 Patients clinical and procedural characteristics from existing studies of FPA

Characteristics	Mehmet Ates, 2005	Wolfgang Mlekusch, 2006	Batric Popovic, 2008	E. Ayhan, 2012	Salem Badr, 2014	Fatih Erol, 2015	Yusuke Tamanaha, 2019
Target	Heart	Heart	Heart	Heart	Heart	Heart	Heart
Age (years)	61.6	68.0	62.5	56.6	65.4	58.6	66.1
Male sex	66.5%	59.0%	70.5%	83.0%	64.4%	72.1%	73.8%
Previous puncture			30.3%			28.6%	
BMI	26.1	26.5	27.4	27.6	29.9		
Diabetic	38.8%	47.6%	23.7%	25.2%	34.3%	17.5%	
Hypertension	58.3%	86.8%	54.7%	41.0%	87.7%	34.6%	
Dyslipidemia		84.2%	63.9%	32.7%	84.9%	74.5%	
Smoker		34.4%	42.6%	62.0%	25.1%	23.5%	
Renal dysfunction				12.2%	17.4%	1.5%	11.5%
Anticoagulant					12.1%	69.8%	10.4%
Aspirin		90.8%			94.9%	91.1%	34.3%
Clopidogrel		59.7%				65.6%	40%
Tirofiban				52.0%	5.5%	15.1%	
Sheath size							
4 F		77.7%	18.7%				
5 F			31.3%				
6 F	66.0%		50%				
7-8 F	34.0%	22.3%					
Closure device		26.4%			53.1%		
Platelet count		247*10^9/L					
Left groin puncture			6.3%				

FPA, femoral pseudoaneurysm; BMI, body mass index.

Table S2 Risk factors based on existing studies of FPA

Factors	Mehmet Ates, 2005 (n=41,332)	Wolfgang Mlekusch, 2006 (n=273)	Batric Popovic, 2008 (n=11,992)	E. Ayhan, 2012 (n=2,600)	Salem Badr, 2014 (n=10,169)	Fatih Erol, 2015 (n=8,469)	Yusuke Tamanaha, 2019 (n=5,234)
FPA	630	23	76	61	139	65	14
Age (years)	61.6	65.4	65.1	60.6	68.5	>65	69.2
Male sex	66.4%	52%	64.5%	68.9%	49.6%	47.7%	64.3%
Previous puncture			40.8%			43.1%	
BMI	28.7	26.4	27.5	27.3	30.3		22.0
Diabetic	44.4%	56.5%	30.2%	24.5%	41.7%	23.1%	21.4%
Hypertension	61.9%	82.6%	61.8%	50.8%	90.6%	56.9%	78.6%
Dyslipidemia		91.3%	61.8%	34.4%	82.7%	83.1%	50%
Smoker		30.4%	36.8%	47.5%	21.6%	21.5%	64.3%
Renal dysfunction				14.7%	26.6%	7.7%	35.7%
Anticoagulant					7.9%	90.8%	7.1%
Aspirin		82.6%			97%	95.4%	21.4%
Clopidogrel		87.0%				81.5%	21.4%
Tirofiban				45.9%	6.5%	27.7%	
Sheath size							
4 F		65.2%	13.2%				14.3%
5 F			26.3%				28.6%
6 F	61.9%		60.5%				7.1%
7-8 F	38.1%	34.8%					50%
Closure device		17.4%			26.5%		0
Platelet count		167*10^9/L					
Left groin puncture			15.8%				
Independent risk factors	Hypertension, diabetics, high BMI, size ≥7 F	Low platelet count	Left groin puncture	Female, age ≥75	No closure, diabetics	Female, previous puncture, hypertension, anticoagulant, renal dysfunction	

Numbers or proportions in table represent value from FPA group. FPA, femoral pseudoaneurysm; BMI, body mass index.

Table S3 Patient clinical and procedural characteristics and univariable analysis of the risk of FPA in 1,098 patients after neurointervention

Variable	Patients			OR (95% CI)	P value
	Total	FPA (%, n=8)	Non-FPA (%, n=1,090)		
Age, years, mean ± SD					0.508
≥60	557	5 (62.5%)	552 (50.6%)	1.624 (0.386-6.831)	
<60	541	3 (37.5%)	538 (49.4%)	Reference	
Sex					0.623
Female	591	5 (62.5%)	586 (53.8%)	1.433 (0.341-6.028)	
Male	507	3 (37.5%)	504 (46.2%)	Reference	
Hypertension					0.098
No	498	1 (12.5%)	497 (45.6%)	Reference	
Yes	600	7 (87.5%)	593 (54.4%)	5.867 (0.719-47.846)	
Diabetic					0.468
No	811	5 (62.5%)	806 (73.9%)	Reference	
Yes	287	3 (37.5%)	284 (26.1%)	1.703 (0.404-7.171)	
Dyslipidemia					0.658
No	634	4 (50.0%)	630 (57.8%)	Reference	
Yes	464	4 (50.0%)	460 (42.2%)	1.370 (0.341-5.505)	
Renal dysfunction					0.331
No	1045	7 (87.5%)	1038 (95.2%)	Reference	
Yes	53	1 (12.5%)	52 (4.8%)	2.852 (0.344-23.609)	
Low platelet count					0.204
No	1059	7 (87.5%)	1052 (96.5%)	Reference	
Yes	39	1 (12.5%)	38 (3.5%)	3.955 (0.475-32.953)	
BMI					0.046
≥27	309	5 (62.5%)	304 (27.9%)	4.309 (1.024-18.142)	
<27	789	3 (37.5%)	786 (72.1%)	Reference	
Smoker					0.752
No	873	6 (75.0%)	867 (79.5%)	Reference	
Yes	225	2 (25.0%)	223 (20.5%)	1.296 (0.260-6.464)	
Sheath size					0.033
≥6F	460	7 (87.5%)	453 (41.6%)	9.843 (1.207-80.281)	
<6F	638	1 (12.5%)	637 (58.4%)	Reference	
Secondary puncture					0.090
No	843	4 (50%)	839 (77.0%)	Reference	
Yes	255	4 (50%)	251 (23.0%)	3.343 (0.830-13.461)	
Hematoma					0.002
No	1070	6 (75.0%)	1064 (97.6%)	Reference	
Yes	28	2 (25.0%)	26 (2.4%)	13.641 (2.628-70.810)	
Antiplatelet					0.219
No	520	2 (25.0%)	520 (47.7%)	Reference	
Yes	578	6 (75.0%)	570 (52.3%)	2.737 (0.550-13.620)	
Exchange sheath					0.306
No	959	6 (75.0%)	953 (87.4%)	Reference	
Yes	139	2 (25.0%)	137 (12.6%)	2.319 (0.463-11.604)	
Closure failure					0.000
No	441	5 (62.5%)	436 (95.4%)	Reference	
Yes	24	3 (37.5%)	21 (4.6%)*	30.543 (6.849-136.213)	

*, totally 457 in non-FPA group received closure, thus closure failure was 4.6% (21/457). FPA, femoral pseudoaneurysm; OR, odds ratio; CI, confidence interval; SD, standard deviation; BMI, body mass index.