

Table S1 Search strategies of performing updated literature search in PubMed and Embase

Search number	Query
Strategy of PubMed	
7	#6 Filters: from 2020/1/1 - 2021/7/31
6	#3 and #4 and #5
5	random*[Title/Abstract]
4	(((((drug-coated balloon[Title/Abstract]) OR (drug coated balloon[Title/Abstract])) OR (drug-eluting balloon[Title/Abstract])) OR (drug eluting balloon[Title/Abstract])) OR (paclitaxel-coated balloon[Title/Abstract]) OR (paclitaxel coated balloon[Title/Abstract])) OR (paclitaxel-eluting balloon[Title/Abstract]) OR (paclitaxel eluting balloon[Title/Abstract])) OR (cutting balloon[Title/Abstract]) OR (cutting-balloon[Title/Abstract])
3	#1 or #2
2	((((((((((Arteriovenous Fistula[Title/Abstract]) OR (Arteriovenous Fistulas[Title/Abstract])) OR (Arteriovenous Aneurysm[Title/Abstract])) OR (arteriovenous fistulae[Title/Abstract])) OR (AV fistulas[Title/Abstract])) OR (arteriovenous access[Title/Abstract])) OR (hemodialysis fistulas[Title/Abstract])) OR (hemodialysis access[Title/Abstract])) OR (dialysis fistulas[Title/Abstract])) OR (dialysis access[Title/Abstract])) OR (dialysis fistula[Title/Abstract]) OR (dialysis fistulae[Title/Abstract])) OR (dialysis fistulas[Title/Abstract])
1	"Arteriovenous Fistula"[Mesh]
Strategy of Embase (via Ovid)	
1	(Arteriovenous Fistula or Arteriovenous Fistulas or Arteriovenous Aneurysm or arteriovenous fistulae or AV fistulas or arteriovenous access or hemodialysis fistulas or hemodialysis access or dialysis fistulas or dialysis access or dialysis fistula or dialysis fistulae or dialysis fistulas).af.
2	(drug-coated balloon or drug coated balloon or drug-eluting balloon or drug eluting balloon or paclitaxel-coated balloon or paclitaxel coated balloon or paclitaxel-eluting balloon or paclitaxel eluting balloon or cutting balloon or cutting-balloon).af.
3	random*.af.
4	#1 and #2 and #3
5	limit 4 to (embase and yr="2020 -Current")

and * indicate order and truncation characters in all search strategies, respectively.

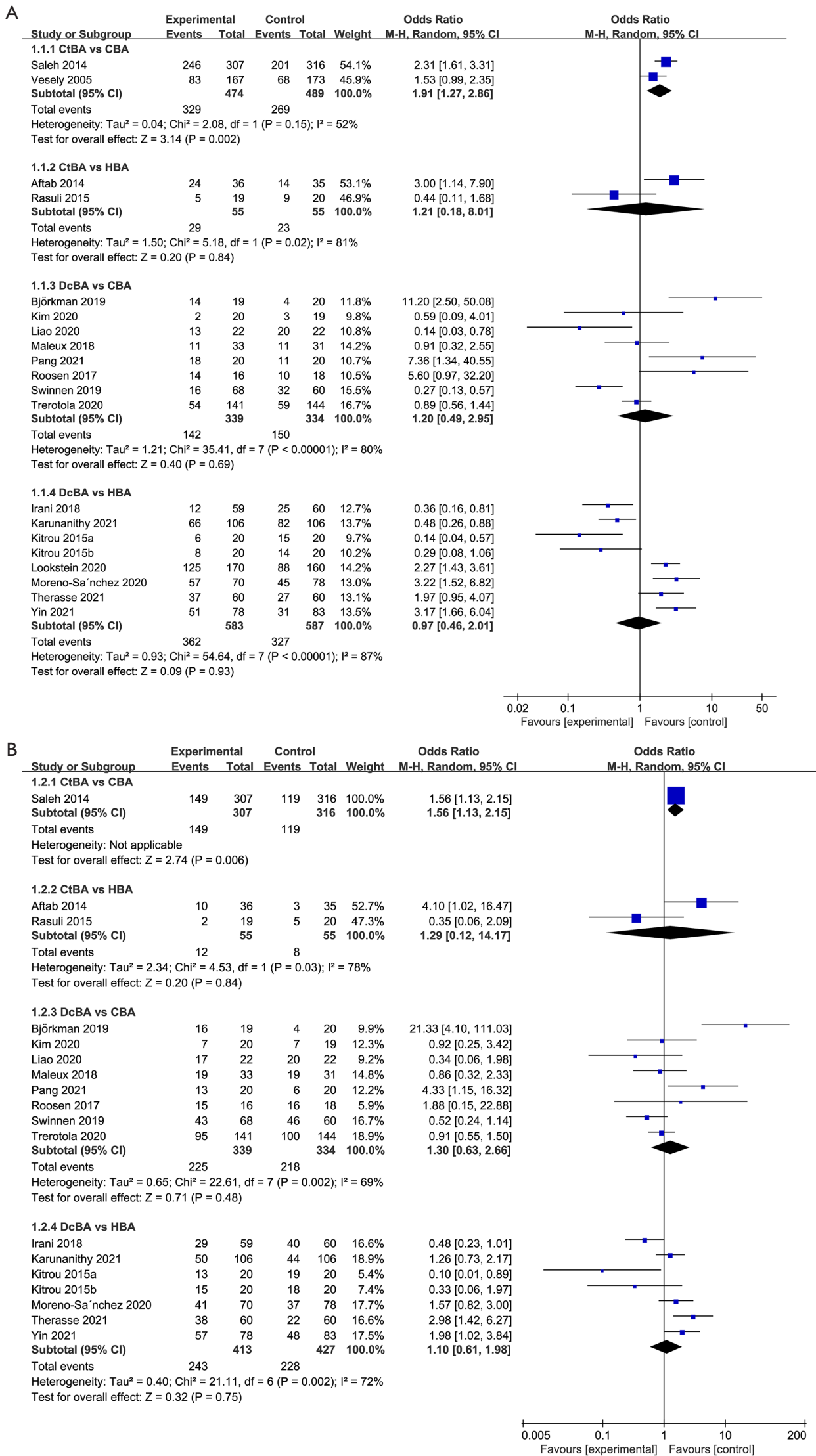


Figure S1 Direct meta-analysis of primary patency at 6 (A) and 12 (B) months. CBA, conventional balloon angioplasty; CtBA, cutting balloon angioplasty; HBA, high-pressure balloon angioplasty; DcBA, drug-coated balloon angioplasty; M-H, Mantel-Haenszel test; CI, confidence interval.

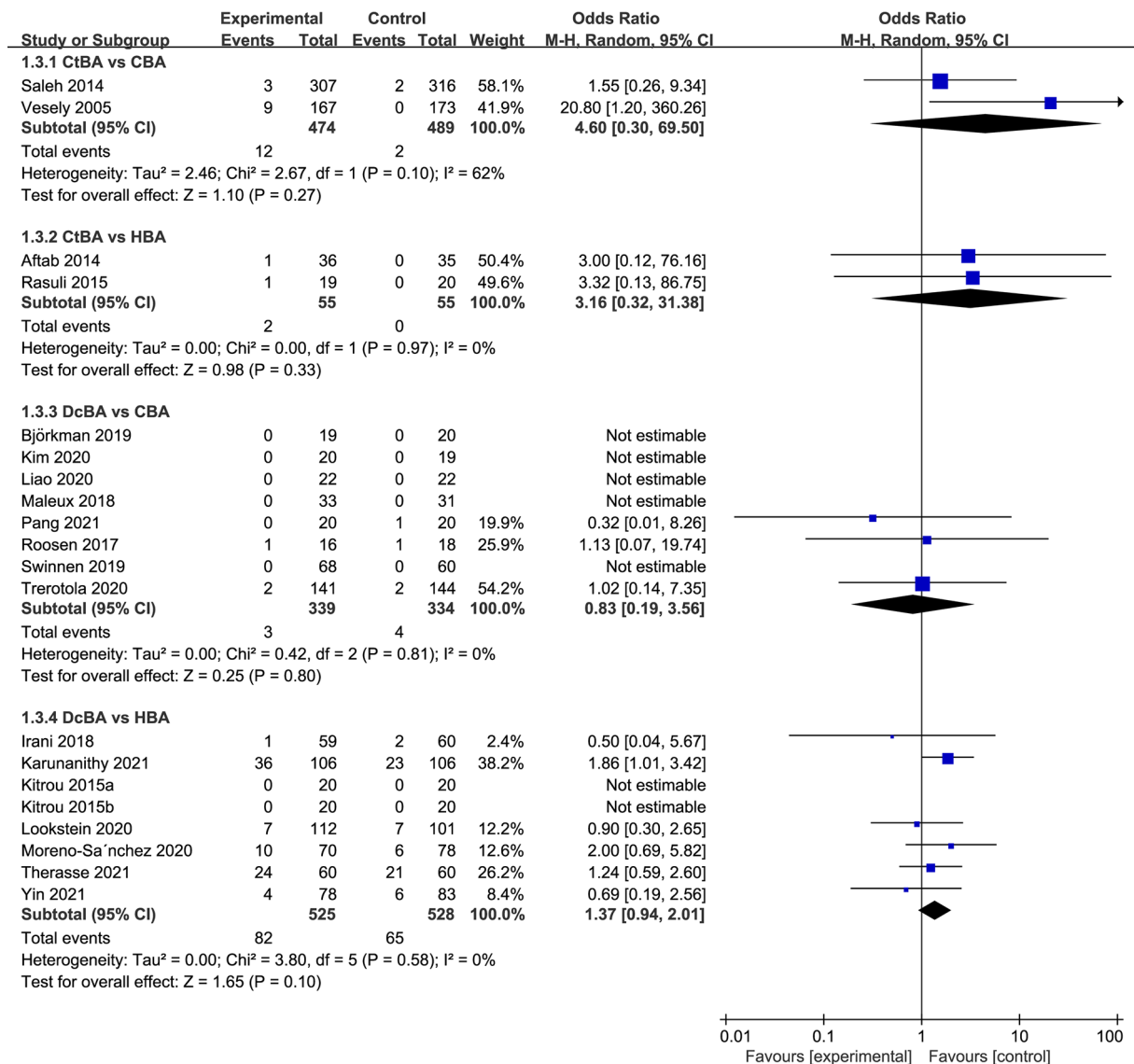


Figure S2 Direct meta-analysis of the risk of complications. CBA, conventional balloon angioplasty; CtBA, cutting balloon angioplasty; HBA, high-pressure balloon angioplasty; DcBA, drug-coated balloon angioplasty; M-H, Mantel-Haenszel test; CI, confidence interval.

Table S2 Sensitivity analysis for TLPP

Study omitted	Estimate	95% confidence interval	
		Lower limit	Upper limit
DcBA vs. CBA at 6 months			
Björkman 2019	0.86912698	0.37871107	1.9946122
Kim 2020	1.3063101	0.49086684	3.476393
Liao 2020	1.5423765	0.60705429	3.9188018
Maleux 2018	1.2796054	0.44235927	3.7014937
Pang 2021	0.95854467	0.38811821	2.3673403
Roosen 2017	0.99810743	0.3950333	2.5218596
Swinnen 2019	1.5773673	0.60431349	4.1172137
Trerotola 2020	1.3194708	0.38023081	4.5788059
Combined	1.2002981	0.48867757	2.9481924
DcBA vs. HBA at 6 months			
Irani 2018	1.1267979	0.53241336	2.3847518
Karunanithy 2021	1.085014	0.50376171	2.3369291
Kitrou 2015a	1.196044	0.5838905	2.4499819
Kitrou 2015b	1.1119275	0.52160305	2.3703523
Lookstein 2020	0.82626736	0.34848315	1.9591126
Moreno-Sánchez 2020	0.80419916	0.36116749	1.7906824
Therasse 2021	0.85656273	0.36956403	1.9853116
Yin 2021	0.80011308	0.35871392	1.7846562
Combined	0.96595591	0.46425638	2.009818
DcBA vs. CBA at 12 months			
Björkman 2019	0.90605354	0.55998427	1.465993
Kim 2020	1.3840177	0.61242169	3.1277549
Liao 2020	1.4920369	0.69672459	3.1952
Maleux 2018	1.4265829	0.61000663	3.3362572
Pang 2021	1.0816749	0.52561241	2.2260141
Roosen 2017	1.2752627	0.5961675	2.7279165
Swinnen 2019	1.5750393	0.68441933	3.6246033
Trerotola 2020	1.465888	0.55817395	3.8497458
Combined	1.2969767	0.63291672	2.6577723
DcBA vs. HBA at 12 months			
Irani 2018	1.3674501	0.78225172	2.3904324
Karunanithy 2021	1.0063983	0.46996474	2.1551354
Kitrou 2015a	1.2824373	0.74747241	2.2002757
Kitrou 2015b	1.2162904	0.66808385	2.2143359
Moreno-Sánchez 2020	0.97911733	0.47352758	2.0245299
Therasse 2021	0.92053491	0.49961829	1.6960638
Yin 2021	0.94708562	0.47157124	1.9020904
Combined	1.101362	0.61166319	1.9831148

TLPP, target lesion primary patency; CBA, conventional balloon angioplasty; CtBA, cutting balloon angioplasty; HBA, high-pressure balloon angioplasty; DcBA, drug-coated balloon angioplasty; TLPP, target lesion primary patency.

A. TLPP at 6 months			
DcBA			
0.61 (0.09, 3.86)	CtBA		
0.85 (0.25, 2.62)	1.43 (0.22, 7.37)	HBA	
1.08 (0.32, 3.55)	1.76 (0.26, 11.64)	1.25 (0.27, 6.55)	CBA
Ranking: (worst) CBA DcBA HBA CtBA (best)			
B. TLPP at 12 months			
DcBA			
0.75 (0.11, 5.10)	CtBA		
0.98 (0.22, 3.55)	1.29 (0.19, 6.91)	HBA	
1.29 (0.42, 4.52)	1.72 (0.27, 13.59)	1.31 (0.29, 9.19)	CBA
Ranking: (worst) CBA DcBA HBA CtBA (best)			
C. Complications			
DcBA			
0.21 (0.01, 2.29)	CtBA		
1.38 (0.54, 3.17)	6.33 (0.63, 102.67)	HBA	
0.48 (0.07, 3.87)	2.38 (0.37, 24.60)	0.37 (0.05, 3.24)	CBA
Ranking: (worst) CtBA CBA DcBA HBA (best)			

Figure S3 Separate network meta-analysis of AVFs. Data are shown as OR (95% CrI). AVFs, arteriovenous fistulas; TLPP, target lesion primary patency; CBA, conventional balloon angioplasty; CtBA, cutting balloon angioplasty; HBA, high-pressure balloon angioplasty; DcBA, drug-coated balloon angioplasty; OR, odds ratio; CrI, credible interval.

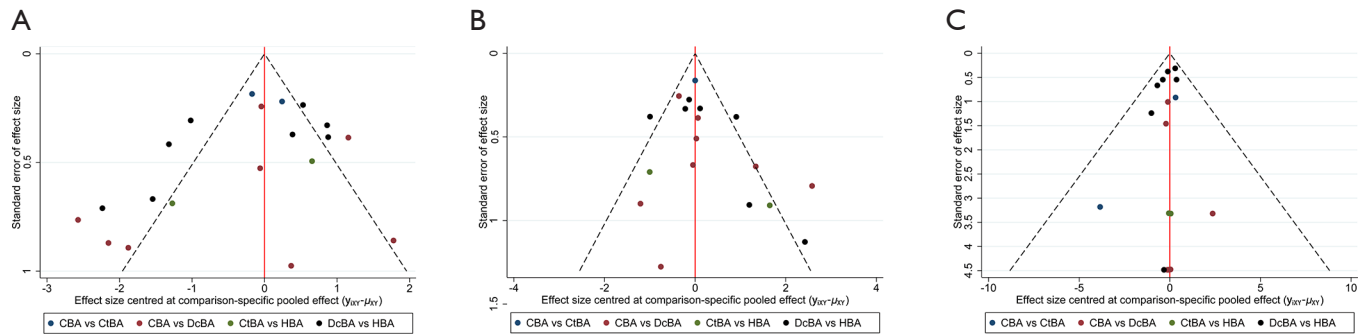


Figure S4 Comparison-adjusted funnel plot of primary patency at 6 (A) and 12 (B) months, and the risk of complications (C). CBA, conventional balloon angioplasty; CtBA, cutting balloon angioplasty; HBA, high-pressure balloon angioplasty; DcBA, drug-coated balloon angioplasty; CI, confidence interval.