

Figure 1. Flowchart showing selection of articles for review.

	N studies	N patients	N event	ts (total)		RR (95% CI)	<sup>2</sup>	P-value
design 1 vs design 2			design 1	design 2				
OPEN vs CLOSED CELL								
30-day any stroke/death	40	33621	648 (18110)	482 (15511)	<b>⊢-</b> ∲1	1.00 (0.76 - 1.31)	64%	0.99
1-year any stroke/death	5	690	31 (343)	37 (347)	<b>⊢</b>	0.57 (0.31 - 1.03)	12%	0.06
new DWI lesions	8	925	217 (635)	88 (290)	<b>⊢</b>	1.25 (1.02 - 1.54)	0%	0.03
restenosis	15	6567	132 (2635)	124 (3932)	F	0.96 (0.56 - 1.63)	63%	0.87
stent fracture	4	597	12 (310)	11 (287)	F	0.73 (0.28 - 1.90)	0%	0.52
intraprocedural hypotension	7	2334	245 (1038)	107 (1296)	⊢ – – – – – – – – – – – – – – – – – – –	1.53 (0.75 - 3.12)	83%	0.24
intraprocedural bradycardia	4	1851	161 (742)	113 (1109)	⊢ – – – – – – – – – – – – – – – – – – –	1.47 (0.46 - 4.63)	85%	0.51
HYBRID vs OPEN CELL								
30-day any stroke/death	10	4182	20 (1370)	76 (2821)	F	1.02 (0.59 - 1.77)	15%	0.93
HYBRID vs CLOSED CELL								
30-day any stroke/death	13	5987	33 (1488)	90 (4499)	<b>⊢</b>	1.38 (0.73 - 2.63)	27%	0.32
					0.0 0.5 1.0 1.5 2.0 2.5 3.0			

Figure 2. Overview of pooled RRs of 11 meta-analyses performed on stent design in relation to adverse outcome after CAS.

		N studies	N patients	N event	ts (total)		RR (95% CI)	<sup>2</sup>	P -value
stent 1	stent 2			stent 1	stent 2				
OPEN vs CLO	DSED CELL								
Acculink	Wallstent	12	6519	50 (1524)	102 (4995)	k	1.51 (1.05 - 2.26)	0%	0.03
Acculink	Xact	15	15418	256 (8595)	207 (6823)	<b>⊢</b> ∎ <mark>-</mark> -1	0.92 (0.71 - 1.20)	11%	0.55
Precise	Wallstent	17	7414	67 (2032)	112 (5382)	<b>⊢</b> ,∎,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1.22 (0.80 - 1.85)	21%	0.35
Precise	Xact	14	9137	167 (4584)	106 (4553)	<b>⊢</b>	1.55 (1.21 - 1.98)	0%	<0.001
Protégé	Wallstent	10	5099	14 (569)	76 (4530)	<b>⊢</b>	1.45 (0.81 - 2.60)	0%	0.22
Protégé	Xact	10	<mark>14</mark> 47	16 (675)	11 (772)	F	1.34 (0.62 - 2.88)	0%	0.46
BOTH OPEN	OR CLOSED CEL	L							
Acculink	Precise	13	8835	99 (4195)	173 (4640)	<b>⊢</b>	0.95 (0.61 - 1.49)	42%	0.84
Acculink	Protégé	6	1397	22 (957)	11 (440)	<b>⊢</b>	1.02 (0.43 - 2.43)	11%	0.97
Precise	Protégé	9	1852	41 (1323)	13 (529)	F	0.95 (0.50 - 1.79)	0%	0.87
Wallstent	Xact	11	5581	77 (4691)	16 (890)	<b>⊢</b>	0.97 (0.53 - 1.75)	8%	0.91
						0.0 0.5 1.0 1.5 2.0 2.5 3.0			

Figure 3. Overview of pooled RRs of the 30-day MAE rate for individual stents. Stent comparisons are separated in terms of open vs closed cell stents, or two stents with the same open or closed design.

reference		events (total)								
	Sx pts (%)	open cell	closed cell	weight (%)	risk ratio (95% CI)	risk ratio				
Blasel 2009	100	23 (52)	15 (32)	18.6	0.94 (0.58, 1.52)					
Du Mesnil 2006	100	13 (37)	3 (13)	3.6	1.52 (0.51, 4.50)		-		+	
Gensicke 2013	100	35 (71)	15 (38)	20.2	1.25 (0.79, 1.98)					
Park 2013	79	24 (47)	12 (44)	13.7	1.87 (1.07, 3.27)					_
Leal 2012	69	7 (19)	8 (45)	5.7	2.07 (0.88, 4.90)					
Nii 2011	60	15 (43)	14 (52)	11.6	1.30 (0.71, 2.38)					
Timaran 2011	43	11 (20)	9 (20)	10.8	1.22 (0.65, 2.29)		-			
Bijuklic 2013	28	89 (346)	12 (46)	15.8	0.99 (0.59, 1.66)		-			
total		- 13 - 38-			1.25 (1.02, 1.54)			-	-	
heterogeneity: X <sup>2</sup>	= 5.63, l <sup>2</sup> = 0%						1		1	1
test for overall eff						0.25	0.5	1	2	4
						favo	urs open	cell fav	ours clos	sed cell

Figure 4. Difference in number of patients with any new MR-DWI detected ischemic brain lesion, between patients treated with open or closed cell stents. Studies are listed in order of declining percentage of symptomatic patients. Risk ratios are shown with 95% confidence intervals. The diamond in the forest plot indicates the total risk ratio and confidence interval; pts = patients; CI = confidence interval; MR-DWI: magnetic resonance-diffusion weighted imaging; Sx = symptomatic.