Antiplatelet therapy in PCI for SCAD

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Early and Long-Term Risk of Ischemic Events

Peri-procedural MI and acute stent thrombosis

Subacute stent thrombosis and spontaneous MI

Death or MI

🖉 **Within 48 hours**

🖉 **Incidence: 6-8%**

🖉 **Within 30 days**

🖉 **Incidence: 6.5-8.5%**

🖉 **1 year**

🖉 **Incidence: 10-12%**

Complications of PCI / Stent Placement

Complications of Atherothrombotic Disease

Recommendations for antithrombotic treatment in SCAD patients undergoing PCI

Recommendations for PCI	Class[a]	Level[b]	Ref[c]
Pretreatment with antiplatelet therapy			
Treatment with 600 mg clopidogrel is recommended in elective PCI patients once anatomy is known and decision to proceed with PCI preferably 2 hours or more before the procedure.	I	A	789–792
Pretreatment with clopidogrel may be considered in patients with high probability for significant CAD.	IIb	C	
In patients on a maintenance dose of 75 mg clopidogrel, a new loading dose of 600 mg or more may be considered once the indication for PCI is confirmed.	IIb	C	
Antiplatelet therapy during PCI			
ASA is indicated before elective stenting.	I	B	776,793,794
ASA oral loading dose of 150–300 mg (or 80-150 mg i.v.) is recommended if not pre-treated.	I	C	
Clopidogrel (600 mg loading dose or more, 75 mg daily maintenance dose) is recommended for elective stenting.	I	A	795–798
GP IIb/IIIa antagonists should be considered only for bail-out.	IIa	C	
Antiplatelet therapy after stenting			
DAPT is indicated for at least 1 month after BMS implantation.	I	A	791,799–801
DAPT is indicated for 6 months after DES implantation.	I	B	799,802,803
Shorter DAPT duration (<6 months) may be considered after DES implantation in patients at high bleeding risk.	IIb	A	804,805
Life-long single antiplatelet therapy, usually ASA, is recommended.	I	A	776,794
Instruction of patients about the importance of complying with antiplatelet therapy is recommended.	I	C	-
DAPT may be used for more than 6 months in patients at high ischaemic risk and low bleeding risk.	IIb	C	-
Anticoagulant therapy			
Unfractionated heparin 70–100 U/kg.	I	B	806
Bivalirudin (0.75 mg/kg bolus, followed by 1.75 mg/kg/hour for up to 4 hours after the procedure) in case of heparin-induced thrombocytopenia.	I	C	-
Bivalirudin (0.75 mg/kg bolus, followed by 1.75 mg/kg/hour during the procedure) in patients at high bleeding risk.	IIa	A	783–785
Enoxaparin i.v. 0.5 mg/kg.	IIa	B	786,788,807

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Cessation of dual antiplatelet treatment and cardiac even after percutaneous coronary intervention (PARIS): 2 year results from a prospective observational study

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A

	Hazard ratio (95% CI)	p value	Observed	Expected
On-DAPT	1·00 (Ref)		413	413·0
Discontinuation	0·63 (0·46–0·86)	0·004	52	82·8
Interruption	1·41 (0·94–2·12)	0·101	26	18·5
Disruption	1·50 (1·14–1·97)	0·004	67	44·6
0–7 days	7·04 (3·31–14·95)	<0·0001	7	1·0
8–30 days	2·17 (0·97–4·88)	0·06	6	2·8
>30 days	1·30 (0·97–1·76)	0·083	54	41·4

B

	Hazard ratio (95% CI)	p value	Observed	Expected
On-DAPT	1·00 (Ref)		116	116·0
Discontinuation	0·92 (0·53–1·58)	0·748	18	19·7
Interruption	1·20 (0·55–2·63)	0·647	7	5·8
Disruption	2·95 (1·99–4·38)	<0·0001	39	13·2
0–7 days	18·25 (8·34–39·95)	<0·0001	7	0·4
8–30 days	4·69 (1·71–12·83)	0·003	4	0·9
>30 days	2·22 (1·42–3·46)	<0·0001	28	12·6

C

	Hazard ratio (95% CI)	p value	Observed	Expected
On-DAPT	1·00 (Ref)		57	57·0
Discontinuation	0·39 (0·11–1·35)	0·137	3	7·7
Interruption	0·64 (0·09–4·82)	0·664	1	1·6
Disruption	2·58 (1·22–5·46)	0·013	10	3·9
0–7 days	15·94 (5·57–45·58)	<0·0001	4	0·3
8–30 days	2·68 (0·36–19·68)	0·334	1	0·4
>30 days	1·35 (0·50–3·64)	0·551	5	3·7

D

	Hazard ratio (95% CI)	p value	Observed	Expected
On-DAPT	1·00 (Ref)		274	274·0
Discontinuation	0·61 (0·41–0·92)	0·019	31	50·5
Interruption	1·97 (1·23–3·17)	0·005	20	10·1
Disruption	1·18 (0·80–1·73)	0·413	31	26·4
0–7 days	7·15 (2·64–19·34)	<0·0001	4	0·6
8–30 days	1·78 (0·57–5·57)	0·322	3	1·7
>30 days	0·98 (0·64–1·52)	0·942	24	24·4

E

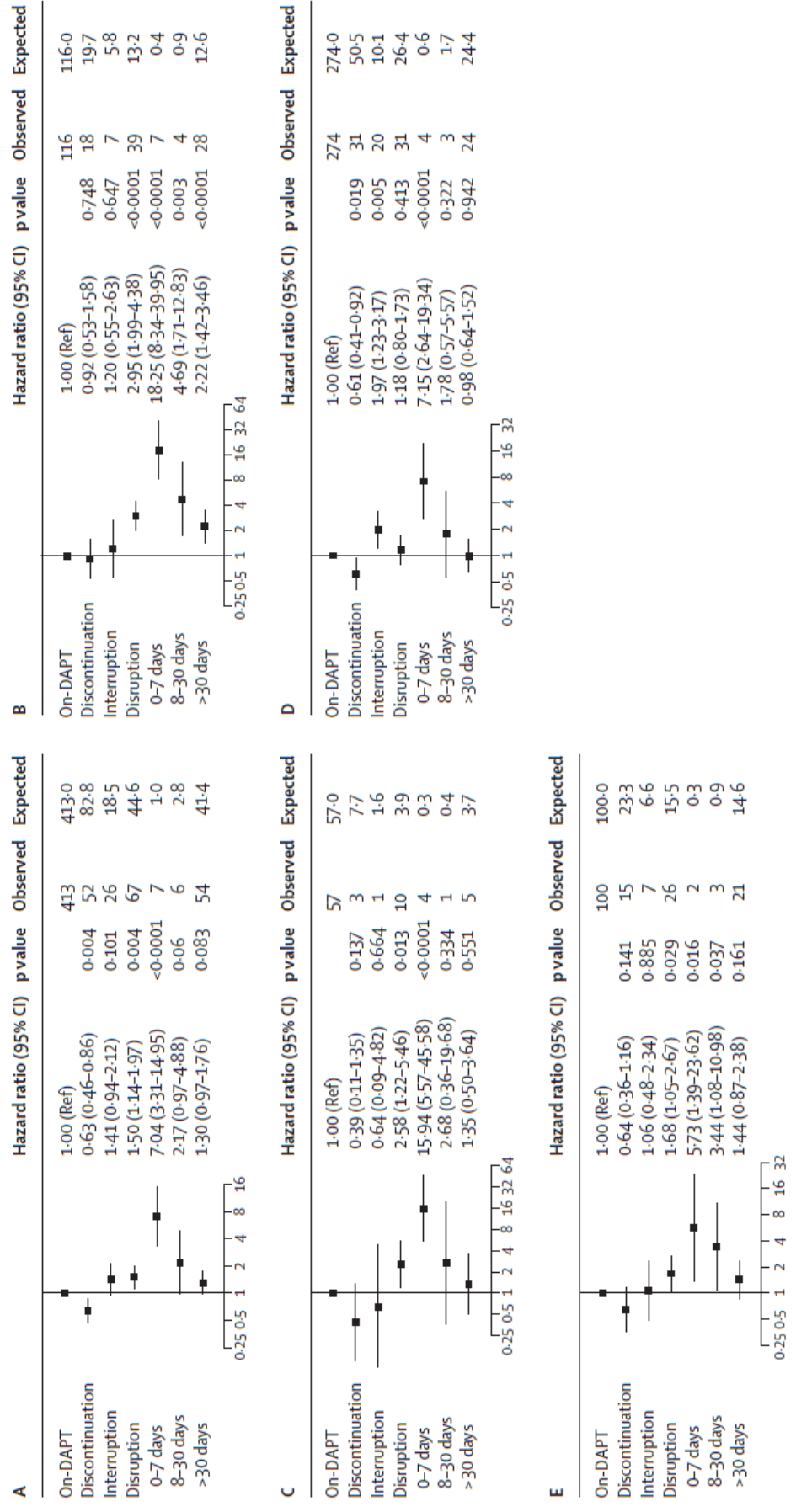|	Hazard ratio (95% CI)	p value	Observed	Expected
On-DAPT	1·00 (Ref)		100	100·0
Discontinuation	0·64 (0·36–1·16)	0·141	15	23·3
Interruption	1·06 (0·48–2·34)	0·885	7	6·6
Disruption	1·68 (1·05–2·67)	0·029	26	15·5
0–7 days	5·73 (1·39–23·62)	0·016	2	0·3
8–30 days	3·44 (1·08–10·98)	0·037	3	0·9
>30 days	1·44 (0·87–2·38)	0·161	21	14·6

Figure 3: **Risk of ischaemic endpoints**
Results of Cox model analyses for risk of major adverse cardiovascular event (MACE; A), spontaneous myocardial infarction (B), definite or probable stent thrombosis (C), target lesion revascularisation (D), and cardiac death (E). Boxes are hazard ratio point estimates and error bars are 95% CIs. DAPT=dual antiplatelet therapy.