

INFLUENCE OF SURGICAL STRATEGY AND BASELINE CONDITIONS VERSUS CYP2C19
POLYMORPHISMS IN ANTIPLATELET RESPONSE TO CLOPIDOGREL IN PATIENTS UNDERGOING
PERCUTANEUS TRANSLUMINAL ANGIOPLASTY

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Objectives: Clopidogrel is a prodrug metabolized through the isoenzyme CYP2C19 to its active form. Antiplatelet response is affected by genetic polymorphisms, being the most important the CYP2C19*2. Other factors also determine the evolution of PAD patients undergoing percutaneous transluminal angioplasty (PTA). →Our objective is to compare the influence of some surgical variables and baseline conditions, against the influence of polymorphism CYP2C19*2 in response to Clopidogrel in patients undergoing PTA.

Methods: Retrospective observational study including patients undergoing PTA treated with Clopidogrel. Polymorphism was determined with saliva samples and test of allelic discrimination Taqman®. Data were collected from patients medical records. →Endpoint for the efficiency: Occurrence of cardiovascular events (thrombosis, myocardial infarction (AMI), stroke (CVA), need for re-intervention, or cardiovascular death).

RESULTS

Parameter	Overall N=72	Endpoint YES N=25	Endpoint NO N=47	OR (95%C.I.) p-value
Fontaine class				
0.114				
1(ref)	6 (8.3)	0 (0)	6 (2.1)	
2A	36 (50)	9 (36)	27 (57.4)	
2B	26 (36.1)	13 (52)	13 (27.6)	
3	4 (5.5)	3 (12)	1 (2.1)	
PVR				
0.106				
1 (ref)	13 (18.1)	2 (8)	11 (23.4)	
2	25(34.7)	13 (52)	12 (25.5)	
3	13 (18.1)	4 (16)	9 (19.1)	
No data	21 (29.2)	6 (24)	15 (31.9)	
Claudication distance				
0.264				
No (ref)	35 (48.6)	12 (48)	23 (48.9)	
>500 m	4 (5.6)	1 (4)	3 (6.3)	
>150 m	10(13.9)	1 (4)	9 (18.9)	
<150 m	23 (31.9)	11 (44)	12 (25.5)	
Nº regions treated				
0.924				
1 (ref)	42 (58.3)	14 (56)	28 (59.5)	
2	29 (40.2)	11 (44)	18 (38.2)	
3	1 (1.38)	0 (0)	1 (2.1)	
TBIP (mean SD)	71.4 (25.0)	68.4 (22.3)	73.4 (26.9)	0.99 (0.96-1.02) p=0.497
Balloon Drug	9 (12.5)	5 (20)	4 (8.5)	0.37 (0.09-1.53) p=0.172
Stent	49 (68.05)	14 (56)	35 (74.4)	2.29 (0.82-6.39) p=0.113
CYP2C19*2	18 (25)	11 (44)	7 (15)	4.49 (1.45-13.84) p=0.009

PVR: arterial PVR test, IC: intermittent claudication, TBIP: toe brachial pressure index. Data are mean (SD) or number (%).



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CONCLUSIONS:

The presence of the CYP2C19 *2 polymorphism seems to be a better predictor of antiplatelet response to Clopidogrel in patients undergoing PTA, than any quantifying variable of the surgical strategy or baseline condition.

