Aspirin or Rivaroxaban for VTE Prophylaxis after Hip or Knee Arthroplasty

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Aspirin or Rivaroxaban for VIE Prophylaxis after Hip or Knee Arthroplasty

- Introduction
- Methods
- Results
- Conclusion

Introduction

Total hip or total knee arthroplasty



Venous thromboembolism



Prevention

Introduction

Aspirin

VS.

Rivaroxaban

Methods

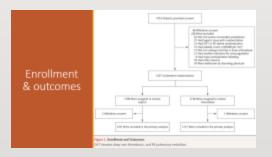
- A double blind RCT in 10 health centers
- Inclusion criteria
- Exclusion criteria

Methods

- Trial procedure and randomization
- Trial outcomes
- Statistical analysis

Results

Patients



Champing	Total Hip Arthroplants		Total time strikerystosy.		of Petions	
	M-1921	August (N-200	Resonator Planting	Aspent Persons	Stration 1710	Approx Par-1797
Return of the last	White	diami	0.564	84667	40.0101	503081
1500 cm - m. (%)	400 (1112)	encicus	200 965.29	100 (100)	2011/4570	104 (471)
Bodymus oder;	284658	(Naph)	33.5944	188612	FE Octo	10.10 8 6
this factor in the PRO						
Frechast opinion the problem the free	32 (A-6)	35(1.2)	20(07)	11,801	043240	11 [63]
Principal Suppose	2015.0	2011.0	18 (4.0)	18 (0.0)	一种红花	18,015
Diese	1963	204	18,019	26 (64)	783128	40,031
Cyronic struker	10 (8.0)	10000	70.000	0.00	201763	160 (6.0)
Paragritor-g/del	1404003	100101710	DESCRIPTION	288664	Immit.	\$14 July 8
Make planted i sout her som?	341,000	28.79	249,790	344.000	340,990	094,000
Type of targets ere (Fig.						
Promise	560 (84.9)	1800 (49.7)	070 (94.5)	190 (96.0)	2002 19119	1540 (R.D)
Barelot	6415.6	SPICE	wyte	40,000	Jake ye. It	MARK
hooficing .	:0011190	40.65	100	194	10 p.m	. 利克斯
Other	1 10 10		1.0016	1 (0.4)	100	188

Subgroup analysis

Outcome	(N=3717)	Aspisin (N=1797)	P Value			
	no of posiciots (%)					
Venous thromboembolism	12 (0.70)	11 (0.64)	0.84*			
Pulmonary embelism	6 (8.35)	5 (8.29)				
Proximal deep-win thrombosis	4 (8.20)	4 (8.20)				
Pulmonary embelium and grassimal deep-vein thrombosis	2 (8.12)	2 (8.12)				
Major bleeding	5 (8.29)	8 (0.47)	0.42			
Any bleeding?	17 (8.99)	22 (3.29)	0.43			

Outcome	Total III	ip Bribroplasiy		Total Gree Adhroplasty			
	Framedon (N=900)	Angelein (No. HEZ)	Police	Enerosites (N=811)	Aspirin (N=100)	Probe	
	m. 0	Q		m.	74.0		
Vensus thromboembollars	5 (0.01)	4 (0.44)	1.00*	7 (0.86)	7 (9.87)	1.000	
Pulmonary ambolism	51030	2 (8.22)		4 (0.45)	3 (9.37)		
Presimal desp-vain thrombosis	19010	1 (9.11)		3 (0.37)	3 (9.37)		
Pulmonary embolism and proxi- mal deep sein thrembesis	2 (0.13)	1 (8.11)		0	1 (9.12)		
Mujor bleeding	3 (0.33)	3 (8.50)	1.00	5 (6.50)	5 (8.63)	6.29	
All blanding (7 (0.78)	33.0.228	0.46	19 (3.25)	33 (8.5%)	8.63	

Enrollment & outcomes

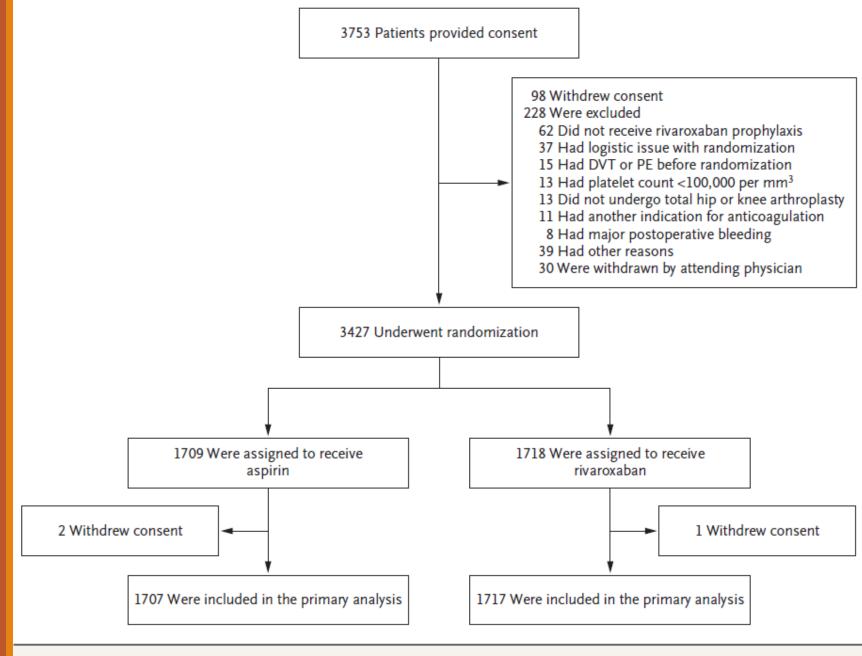


Figure 1. Enrollment and Outcomes.

DVT denotes deep-vein thrombosis, and PE pulmonary embolism.

Table 1. Characteristics of the Patients at Baseline, According to Surgical Subgroup.*

Characteristic	Total Hip Arthroplasty		Total Knee Arthroplasty		All Patients	
	Rivaroxaban (N = 902)	Aspirin (N = 902)	Rivaroxaban (N=815)	Aspirin (N = 805)	Rivaroxaban (N=1717)	Aspirin (N = 1707)
Age — yr	60.9±11.0	61.3±11.1	64.7±8.4	64.6±8.7	62.7±10.1	62.9±10.1
Male sex — no. (%)	480 (53.2)	486 (53.9)	353 (43.3)	318 (39.5)	833 (48.5)	804 (47.1)
Body-mass index†	29.4±5.8	29.4±6.0	32.7±6.8	33.0±7.2	31.0±6.6	31.1±6.8
Risk factors — no. (%)						
Previous venous thromboembolism	22 (2.4)	20 (2.2)	22 (2.7)	17 (2.1)	44 (2.6)	37 (2.2)
Previous surgery	28 (3.1)	30 (3.3)	18 (2.2)	28 (3.5)	46 (2.7)	58 (3.4)
Cancer	19 (2.1)	17 (1.9)	19 (2.3)	25 (3.1)	38 (2.2)	42 (2.5)
Current smoker	86 (9.5)	83 (9.2)	71 (8.7)	79 (9.8)	157 (9.1)	162 (9.5)
Hemoglobin — g/liter	140.4±12.5	140.2±13.0	138.2±12.8	138.0±12.8	139.4±12.7	139.2±12.9
Mean platelet count per mm³	241,200	238,700	240,700	244,100	240,900	241,200
Type of surgery — no. (%)						
Primary	802 (88.9)	809 (89.7)	770 (94.5)	760 (94.4)	1572 (91.6)	1569 (91.9)
Revision	64 (7.1)	52 (5.8)	44 (5.4)	42 (5.2)	108 (6.3)	94 (5.5)
Resurfacing	35 (3.9)	41 (4.5)	NA	NA	35 (2.0)	41 (2.4)
Other	1 (0.1)	0	1 (0.1)	3 (0.4)	2 (0.1)	3 (0.2)

Table 2. Primary Effectiveness and Safety Outcomes. Rivaroxaban Aspirin (N = 1717)P Value Outcome (N = 1707)no. of patients (%) Venous thromboembolism 0.84*12 (0.70) 11 (0.64) Pulmonary embolism 6 (0.35) 5 (0.29) Proximal deep-vein thrombosis 4 (0.23) 4 (0.23) Pulmonary embolism and proximal deep-vein thrombosis 2 (0.12) 2 (0.12) Major bleeding 5 (0.29) 8 (0.47) 0.42 Any bleeding† 22 (1.29) 17 (0.99) 0.43

^{*} P<0.001 for noninferiority, as defined by the upper boundary of the 95% confidence interval for the absolute betweengroup difference.

[†] This category includes major bleeding and clinically relevant nonmajor bleeding.

Table 3. Primary Effectiveness and Safety Outcomes, According to Surgical Procedure.

Outcome	Total Hip Arthroplasty			Total Knee Arthroplasty			
	Rivaroxaban (N = 902)	Aspirin (N = 902)	P Value	Rivaroxaban (N=815)	Aspirin (N = 805)	P Value	
	no. (%	6)		no. (S	%)		
Venous thromboembolism	5 (0.55)	4 (0.44)	1.00*	7 (0.86)	7 (0.87)	1.00†	
Pulmonary embolism	2 (0.22)	2 (0.22)		4 (0.49)	3 (0.37)		
Proximal deep-vein thrombosis	1 (0.11)	1 (0.11)		3 (0.37)	3 (0.37)		
Pulmonary embolism and proxi- mal deep-vein thrombosis	2 (0.22)	1 (0.11)		0	1 (0.12)		
Major bleeding	3 (0.33)	3 (0.33)	1.00	2 (0.25)	5 (0.62)	0.29	
All bleeding‡	7 (0.78)	11 (1.22)	0.48	10 (1.23)	11 (1.37)	0.83	

^{*} P = 0.001 for noninferiority.

 $[\]dagger$ P=0.03 for noninferiority.

[‡] This category includes major bleeding and clinically relevant nonmajor bleeding.

Table 4. Subgroup Analysis of Primary Outcomes, According to Use of Long-Term Aspirin Therapy. No Long-Term Aspirin Therapy Long-Term Aspirin Therapy Outcome Rivaroxaban Aspirin Rivaroxaban Aspirin (N = 429)(N = 426)P Value (N = 1288)(N = 1281)P Value no. (%) no. (%) Venous thromboembolism 3 (0.70) 1.00 9 (0.70) 8 (0.62) 1.00* 3 (0.70) Major bleeding 1.00 1 (0.23) 4 (0.94) 0.22 4 (0.31) 4 (0.31) All bleeding† 5 (1.17) 8 (1.88) 0.42 12 (0.93) 14 (1.09) 0.70

^{*} P<0.001 for noninferiority.

[†] This category includes major and clinically relevant nonmajor bleeding.

Conclusion

EPCAT I

EPCAT II

Conclusion

Not significantly different

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THANKS FOR YOUR ATTENTION