## Supplementary Materials



Supplementary Figure 1. Funnel plot of standard errors against differences in means for  $T_{peak}$  –  $T_{end}$ 

interval.

Study name			Statistics	with study r	emoved			Difference in means (95% CI) with study removed				
	Point	Standard error	Variance	Lower limit	Upper limit	Z-Value	p-Value					
Morita 2017	13.894	4.412	19.466	5.246	22.541	3.149	0.002					- 1
Mugnai 2017	14.696	4.142	17.158	6.577	22.814	3.548	0.000			-	╉─┤	
Kawazoe 2016	11.461	4.337	18.808	2.961	19.961	2.643	0.008					
Zumhagen 2016	12.009	4.367	19.068	3.450	20.567	2.750	0.006					
Maury 2015	9.711	3.274	10.720	3.294	16.128	2.966	0.003				⊢ ∣	
Letsas 2010	12.677	4.399	19.353	4.054	21.299	2.882	0.004					
Junttila 2008	13.517	4.673	21.835	4.358	22.675	2.893	0.004					
Wang 2007	10.933	4.120	16.976	2.857	19.008	2.653	0.008					
Castro Hevia 2006	12.752	4.468	19.967	3.994	21.510	2.854	0.004					
	12.435	4.019	16.155	4.557	20.312	3.094	0.002					
								-50.00	-25.00	0.00	25.00	50.00
									Mean difference (ms)			
								Low	Lower in event- Higher in ev			vent-

Maximum T<sub>peak</sub> - T<sub>end</sub> mean difference (sensitivity analysis)

Supplementary Figure 2. Forest plot demonstrating the results of sensitivity analysis by removing one

positive group

positive group

study at a time for mean differences for  $T_{\text{peak}}-T_{\text{end}}$  interval.



Supplementary Figure 3. Funnel plot of standard errors against differences in means for T<sub>peak</sub> - T<sub>end</sub> / QT

ratio.

Statistics with study removed Difference in means (95% CI) with study removed Study name Standard Lower Upper Variance limit Point error limit Z-Value p-Value Morita 2017 0.022 0.011 0.000 -0.001 0.044 1.909 0.056 Mugnai 2017 0.025 0.008 0.000 0.010 0.041 3.184 0.001 Zumhagen 2016 0.014 0.010 0.000 -0.006 0.034 1.362 0.173 Maury 2015 0.010 0.000 0.032 1.301 0.013 -0.006 0.193 Letsas 2010 0.018 0.012 0.000 -0.005 0.042 1.517 0.129 Castro Hevia 2006 0.018 0.012 0.000 -0.005 0.042 1.524 0.128 0.018 0.010 0.000 -0.001 0.038 1.845 0.065 -0.15 -0.08 0.00 0.08 0.15 Mean difference Lower in event-Higher in eventpositive group positive group

Maximum  $T_{peak}$  -  $T_{end}$  / QT ratio (sensitivity analysis)

Supplementary Figure 4. Forest plot demonstrating the results of sensitivity analysis by removing one study at a time for mean differences for  $T_{peak} - T_{end} / QT$  ratio.



Supplementary Figure 5. Funnel plot of standard errors against differences in means for  $T_{peak}$  –  $T_{end}$ 

dispersion.

Study name			Statistics	with study r	emoved			Difference in means (95% CI) with study removed				
	Point	Standard error	Variance	Lower limit	Upper limit	Z-Value	p-Value					
Mugnai 2017	12.951	4.404	19.397	4.319	21.583	2.941	0.003			-	┣ │	
Kawazoe 2016	6.623	4.410	19.446	-2.020	15.266	1.502	0.133			╶╴╋		
Maury 2015	7.860	5.629	31.685	-3.173	18.892	1.396	0.163			╶═╋┼	-	
Letsas 2010	11.563	5.388	29.036	1.001	22.124	2.146	0.032				-	
Castro Hevia 2006	10.182	5.902	34.829	-1.384	21.749	1.725	0.084			┣╋╌┤	-	
	9.870	4.577	20.947	0.900	18.840	2.157	0.031				•	
								-75.00	-37.50	0.00	37.50	75.00
									Mea	n differe	ence	
								Low pos	Lower in event- Higher in event- Higher in event- Higher in event-			vent- oup

Maximum  $\rm T_{peak}$  -  $\rm T_{end}$  dispersion (sensitivity analysis)

Supplementary Figure 6. Forest plot demonstrating the results of sensitivity analysis by removing one study at a time for mean differences for  $T_{peak} - T_{end}$  dispersion.



Supplementary Figure 7. Forest plot demonstrating the mean difference in  $T_{peak} - T_{end}$  intervals between

patients with and without SCN5A mutations in Brugada Syndrome.

Mean difference in maximum  $T_{peak}$  -  $T_{end}$  / QT ratio between SCN5A and no SCN5A mutations



Supplementary Figure 8. Forest plot demonstrating the mean difference in T<sub>peak</sub> – T<sub>end</sub> /QT ratios between

patients with and without SCN5A mutations in Brugada Syndrome.

Mean difference in  $T_{\mbox{\scriptsize peak}}$  -  $T_{\mbox{\scriptsize end}}$  dispersion between SCN5A and no SCN5A mutations



Supplementary Figure 9. Forest plot demonstrating the mean difference in T<sub>peak</sub> – T<sub>end</sub> dispersion between

patients with and without SCN5A mutations in Brugada Syndrome.

## Supplementary Table 1. NOS risk of bias scale for cohort studies.

		Selection				Outcome		
Studies	Representativeness	Selection of Asce	ertainment Outcome	of Comparabilit	Assessme	Adequacy	Adequacy of	Total
	of the exposed	the of ex	xposure interest	not y	nt of	of duration	completeness	score
	Cohort	non-exposed	present	at	outcome	of	of follow-up	(0-9)
		cohort	start of stud	ły		follow-up		
Morita	1	0 1	1	1 (age)	1	1	1	7
2017								
Mugnai	1	0 1	1	0	1	1	1	6
2017								
Letsas	1	0 1	1	0	1	1	1	6
2010								

## Supplementary Table 2. NOS risk of bias scale for included case-control studies.

	Selection								
Studies	Adequate Representativeness		Selection	Definitio	Comparability	Ascertainment	Same method	Non-respon	Total
	definition	of cases	of	n of		of exposure	of	se rate	score
	of cases	of cases		controls			ascertainment		(0-9)
							for subjects		
Zumhagen	1	1	0	0	1 (age)	1	1	1	6
2016									
Maury 2015	1	1	0	1	1 (age)	1	1	1	7
Junttila 2008	1	1	0	1	1 (age)	1	1	1	7
Wang 2007	1	1	1	1	1 (age)	1	1	1	8
Castro Hevia	1	1	1	1	1 (age)	1	1	1	8
2006									
Kawazoe	1	1	0	1	1 (age)	1	1	1	7
2016									