

The Association between *ABCG2* 421C>A (rs2231142) Polymorphism and Rosuvastatin Pharmacokinetics: A Systematic Review and Meta-Analysis

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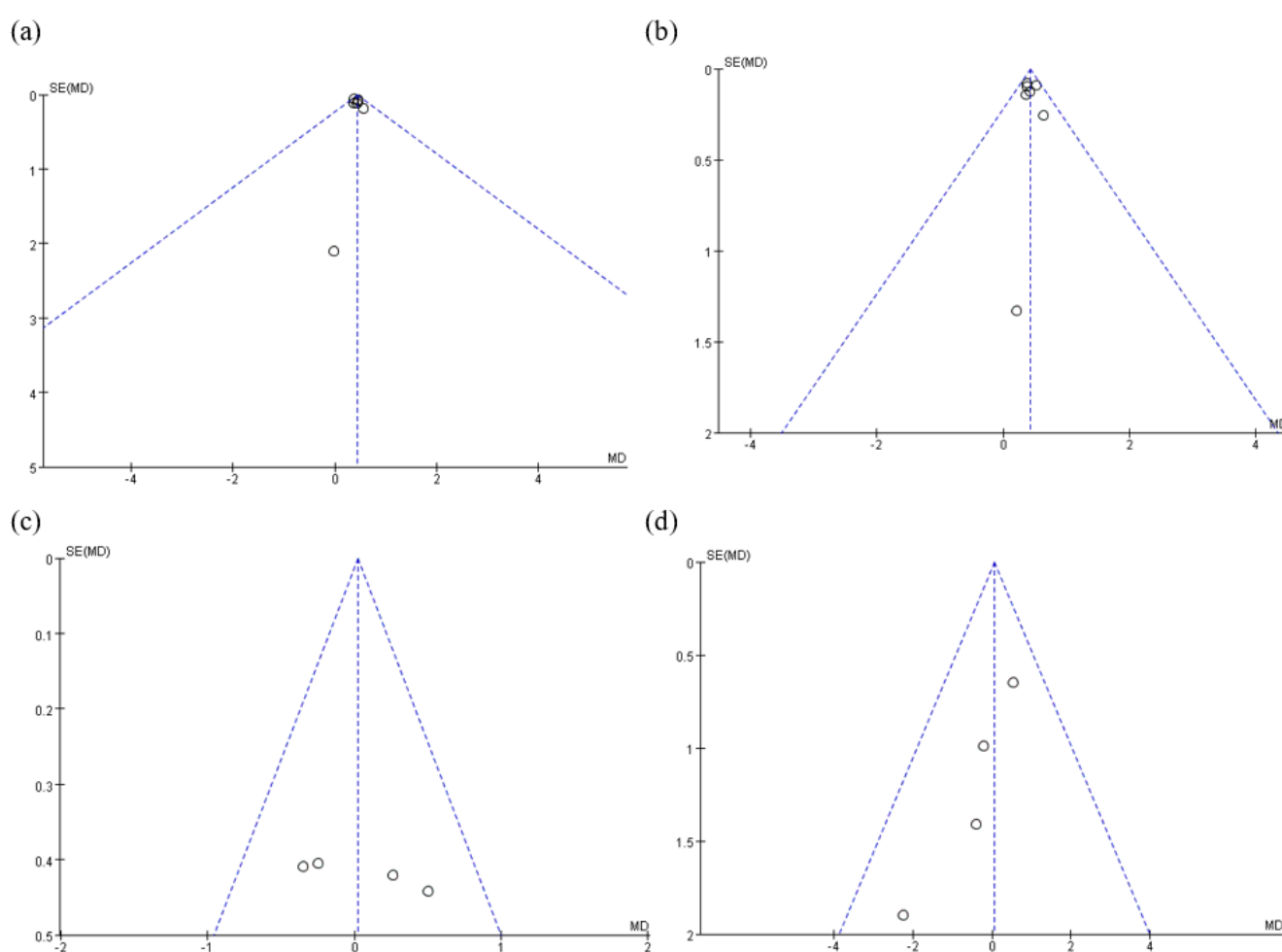


Figure S1. Funnel plot of effect of *ABCG2* 421C>A on rosuvastatin; (a) $AUC_{0-\infty}$ (ng·h/ml), (b) C_{max} (ng/ml), (c) t_{max} (h), (d) half-life (h)

Table S1. AUC_{0-∞} (ng·h/ml) and C_{max} (ng/ml) of rosuvastatin between *ABCG2* 421 A allele carriers and GG genotype carriers

Studies	Dose (mg)	Type of mean	AUC _{0-∞} (ng·h/mL)				C _{max} (ng/mL)			
			<i>ABCG2</i> 421 CA/AA		<i>ABCG2</i> 421 CC		<i>ABCG2</i> 421 CA/AA		<i>ABCG2</i> 421 CC	
			Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N
Birmingham 2015a	20	G	179.0 (1.5)	33	114.0 (1.5)	54	18.8 (1.5)	33	11.1 (1.6)	54
Birmingham 2015b	20	G	216.7 (1.5)	60	148.8 (1.5)	78	23.4 (1.6)	60	15.9 (1.6)	78
Huguet 2016	10	G	26.9 (15.5)	2	27.5 (20.3)	14	N/A	N/A	N/A	N/A
Keskitalo 2009	20	A	95.2 (32.1)	16	62.3 (22.7)	16	10.0 (4.2)	16	7.1 (3.1)	16
Kim 2017	20	G	N/A	N/A	N/A	N/A	19.9 (10.7)	9	16.2 (8.4)	4
Liu 2016	20	A	239.4 (140.6)	34	153.8 (66.5)	27	25.3 (13.9)	34	16.2 (8.4)	27
Wan 2015	10	A	177.5 (58.0)	34	112.7 (38.2)	28	16.5 (7.8)	34	10.9 (3.6)	28
Zhang 2006	20	A	62.2 (23.5)	7	34.9 (11.9)	7	9.9 (5.4)	7	5.1 (2.4)	7

A: arithmetic mean; AUC: area under the curve; G: geometric mean; N/A: not available; SD: standard deviation.

Table S2. Sensitivity analysis of rosuvastatin AUC_{0-∞} (ng·h/ml)

Excluded study	lnGM	95% CI	I ²	GM: geometric mean difference; CI: confidence interval
Birmingham 2015a	0.42	0.33 to 0.51	0	
Birmingham 2015b	0.45	0.35 to 0.54	0	
Huguet 2016	0.43	0.35 to 0.50	0	
Keskitalo 2009	0.42	0.34 to 0.51	0	
Kim 2017	0.43	0.35 to 0.50	0	
Liu 2016	0.43	0.35 to 0.51	0	
Wan 2015	0.42	0.33 to 0.50	0	
Zhang 2006	0.42	0.34 to 0.50	0	
TOTAL	0.43	0.35 to 0.50	0	

Table S3. Sensitivity analysis of rosuvastatin C_{max} (ng/ml)

Excluded study	lnGM	95% CI	I ²	GM: geometric mean difference; CI: confidence interval
Birmingham 2015a	0.39	0.29 to 0.49	0	
Birmingham 2015b	0.44	0.33 to 0.55	0	
Keskitalo 2009	0.43	0.33 to 0.52	0	
Kim 2017	0.42	0.33 to 0.51	0	
Liu 2016	0.42	0.32 to 0.52	0	
Wan 2015	0.44	0.34 to 0.54	0	
Zhang 2006	0.41	0.32 to 0.50	0	
TOTAL	0.42	0.33 to 0.51	0	

Table S4. Sensitivity analysis of rosuvastatin t_{\max} (h)

Excluded study	AMD	95% CI	I ²	AMD: arithmetic mean difference; CI: confidence interval
Keskitalo 2009	0.12	-0.36 to 0.59	8	
Liu 2016	-0.12	-0.59 to 0.34	0	
Wan 2015	-0.06	-0.53 to 0.41	14	
Zhang 2006	0.15	-0.33 to 0.63	0	
TOTAL	0.02	-0.39 to 0.43	0	

Table S5. Sensitivity analysis of rosuvastatin half-life (h)

Excluded study	AMD	95% CI	I ²	AMD: arithmetic mean difference; CI: confidence interval
Keskitalo 2009	0.11	-0.91 to 1.13	1	
Liu 2016	0.21	-0.78 to 1.20	0	
Wan 2015	-0.57	-2.03 to 0.89	0	
Zhang 2006	0.13	-0.97 to 1.23	3	
TOTAL	0.05	-0.91 to 1.01	0	