

Supplementary Information for

The rs1256328 (*ALPL*) and rs12654812 (*RGS14*) Polymorphisms Are Associated with Susceptibility to Calcium Nephrolithiasis in a Taiwanese population

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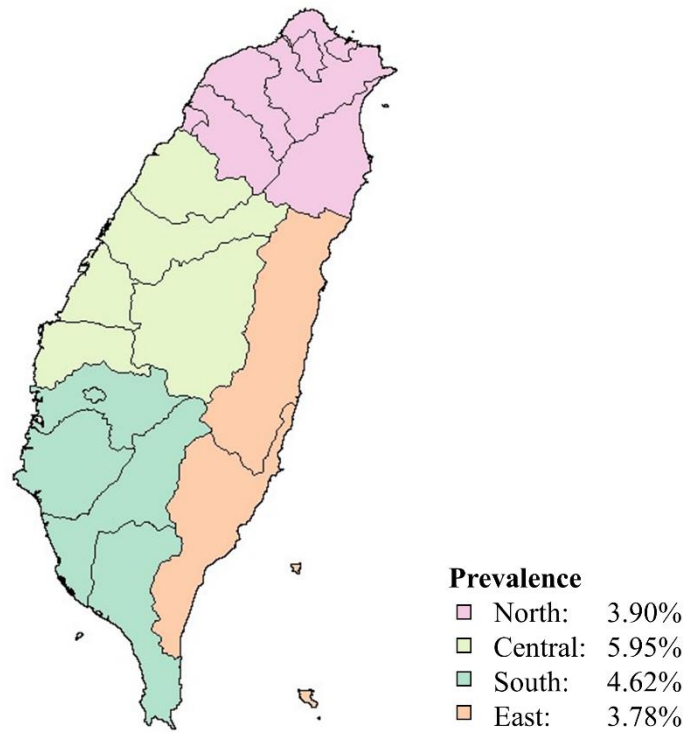


Fig. S1. Regional prevalence of nephrolithiasis in Taiwan

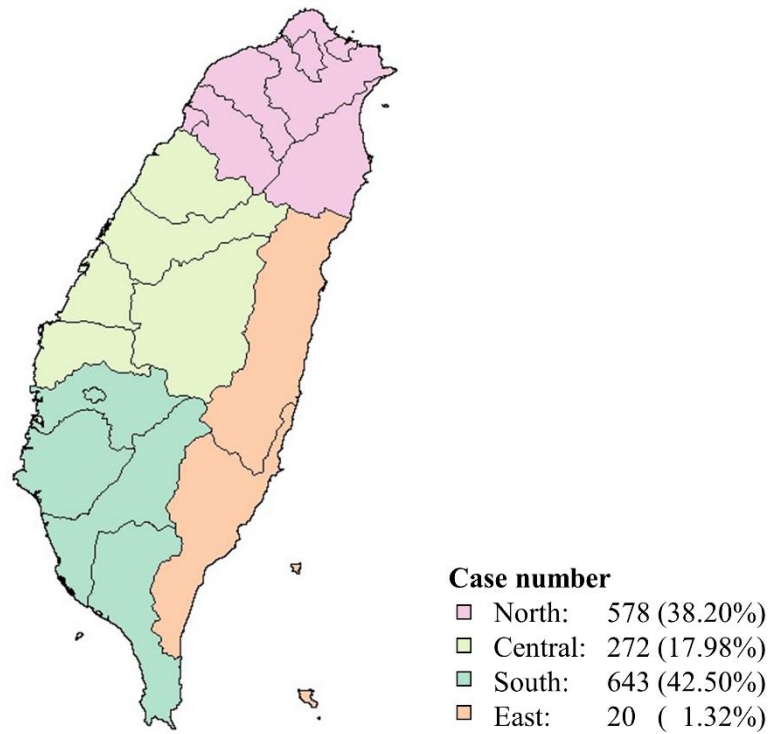


Fig. S2. Distribution of the subjects from Taiwan Biobank

Table S1. Comparisons of genotype and allele distributions between nephrolithiasis patients and controls.

SNP	Genotype	Genotype Frequencies		<i>P</i> value	Allele	Allele Frequencies		<i>P</i> value
		Case (%)	TWB ^a (%)			Case (%)	TWB ^a (%)	
<i>ALPL</i> rs1256328	TT	33 (7.5)	58 (3.9)	0.0005	T	180 (20.5)	609 (20.2)	0.8313
	CT	114 (26.0)	493 (32.7)		C	696 (79.5)	2403 (79.8)	
	CC	291 (66.5)	955 (63.4)					
<i>CASR</i> rs7627468	GG	97 (22.8)	346 (23.2)	0.0613	G	379 (44.5)	1419 (47.5)	0.1170
	AG	185 (43.4)	727 (48.7)		A	473 (55.5)	1567 (52.5)	
	AA	144 (33.8)	420 (28.1)					
<i>RGS14</i> rs12654812	AA	39 (8.6)	68 (4.9)	0.0072	A	238 (27.2)	659 (23.7)	0.0346
	AG	160 (37.1)	523 (37.6)		G	636 (72.8)	2121 (76.3)	
	GG	238 (54.3)	799 (57.5)					

^aGeneral population from Taiwan Biobank. *P* values which remain significant after performing Bonferroni correction ($p \leq 0.016$) are shown in bold.

Table S2. Association analysis between SNPs and stone frequency and stone numbers in patients with kidney stone.

Variant	Genotype	Multiple Stones (%)		<i>P</i> -value	Recurrence (%)		<i>P</i> -value
		Multiple	Single		Recurrence	Non-recurrence	
<i>ALPL</i>	TT	13 (6.1)	17 (8.6)	0.9533	13 (7.3)	14 (6.3)	0.7281
rs1256328	CT	63 (29.4)	47 (23.9)		44 (24.6)	64 (28.8)	
	CC	138 (64.5)	133 (67.5)		122 (68.1)	144 (64.9)	
<i>CASR</i>	GG	43 (20.6)	48 (25.3)	0.1050	40 (23.1)	47 (21.8)	0.9833
rs7627468	AG	89 (42.6)	83 (43.7)		73 (42.2)	96 (44.4)	
	AA	77 (36.8)	59 (31.0)		60 (34.7)	73 (33.8)	
<i>RGS14</i>	AA	24 (11.3)	12 (6.1)	0.1736	19 (10.6)	18 (8.1)	0.9405
rs12654812	AG	76 (35.7)	74 (37.6)		59 (33.0)	86 (38.9)	
	GG	113 (53.0)	111 (56.3)		101 (56.4)	117 (53.0)	

The *P* value was adjusted for sex and age. *P* values which remain significant after performing Bonferroni correction ($p \leq 0.016$) are shown in bold.

Table S3. Association analysis between SNPs and CGGFR/MDRD-S in patients with kidney stone

SNP	Genotype	MDRDs (ml/min/1.73 m ²)	<i>P</i> -value	CGGFR (ml/min)	<i>P</i> -value
<i>ALPL</i> rs1256328	TT	71.92 ± 31.00	0.1704	82.23 ± 25.78	0.7298
	CT	82.63 ± 27.10		87.28 ± 26.15	
	CC	80.21 ± 28.98		84.27 ± 30.39	
<i>CASR</i> rs7627468	GG	82.87 ± 27.70	0.3126	84.92 ± 32.59	0.3628
	AG	81.25 ± 27.32		88.37 ± 24.78	
	AA	77.49 ± 31.45		82.02 ± 30.86	
<i>RGS14</i> rs12654812	AA	76.30 ± 29.42	0.6629	77.54 ± 21.87	0.1919
	AG	80.03 ± 26.15		88.86 ± 28.03	
	GG	80.87 ± 30.27		83.58 ± 30.42	

The *P* value was adjusted for sex and age. *P* values which remain significant after performing Bonferroni correction ($p \leq 0.016$) are shown in bold.