

SUPPLEMENTARY MATERIALS

There were statistically significant differences in enrollment age and visit month between the case group and the control group in all provinces before matching. After 1:2 PS matching based on enrollment age and visit month, there were no statistical significances in enrollment age and visit month, with standard mean differences (SMD) all below 0.1 in all provinces (Supplementary Table S1).

Supplementary Table S1. Characteristics of case (RV positive) and controls (RV negative) before and after propensity matching in three provinces*

Variable	Before matching				After matching			
	Cases Mean (SD)	Controls Mean (SD)	<i>P</i>	SMD	Cases Mean (SD)	Controls Mean (SD)	<i>P</i>	SMD
Guangdong								
<i>N</i>	155	2,555			155	308		
Age	5.8a (3.23)	6.93 (3.07)	< 0.001	0.349	5.83 (-3.23)	5.82 (-3.11)	0.980	0.002
Visit month	2.01 (1.23)	1.44 (1.02)	< 0.001	0.509	2.01 (-1.23)	1.98 (-1.32)	0.836	0.021
Beijing								
<i>N</i>	627	6,982			627	1,254		
Age	4.89 (3.43)	6.56 (3.25)	< 0.001	0.501	4.89 (3.43)	4.97 (3.30)	0.623	0.024
Visit month	1.84 (1.29)	1.46 (1.27)	< 0.001	0.303	1.84 (1.29)	1.90 (1.44)	0.404	0.042
Hubei								
<i>N</i>	1,410	15,743			1,410	2,820		
Age	4.16 (2.63)	6.41 (3.16)	< 0.001	0.775	4.16 (2.63)	4.08 (2.62)	0.355	0.030
Visit month	2.25 (1.26)	1.48 (1.15)	< 0.001	0.639	2.25 (1.26)	2.20 (1.27)	0.264	0.037

Note. * PS matching was on enrollment age and visit month.

After PS matching for enrollment age and visit month, conditional logistic regression results showed as follows (Supplementary Table S2).

Supplementary Table S2. Vaccine effectiveness of RV5 against any RV infection in three provinces

Item	Cases, <i>N</i> (%)	Controls, <i>N</i> (%)	OR (95% CI)	VE (95% CI)
Guangdong				
Vaccination doses	<i>n</i> = 155	<i>n</i> = 308		
0 doses	109 (70.32)	201 (65.26)		
1 or 2 doses	9 (5.81)	13 (4.22)	1.12 (0.41-3.02)	-11.8 (-202.4-58.7)
3 doses	37 (23.87)	94 (30.52)	0.59 (0.35-1.00)	40.9 (-0.4-65.2)
Beijing				
Vaccination doses	<i>n</i> = 627	<i>n</i> = 1,254		
0 doses	541 (86.28)	865 (68.98)		
1 or 2 doses	25 (3.99)	82 (6.54)	0.40 (0.23-0.72)	59.6 (27.7-77.5)
3 doses	61 (9.73)	307 (24.48)	0.30 (0.21-0.42)	70.0 (58.0-78.6)
Hubei				
Vaccination doses	<i>n</i> = 1,410	<i>n</i> = 2,820		
0 doses	1,203 (85.32)	2,006 (71.13)		
1 or 2 doses	40 (2.84)	97 (3.44)	0.48 (0.29-0.79)	52.0 (21.1-70.8)
3 doses	167 (11.84)	717 (25.43)	0.28 (0.22-0.36)	72.2 (64.4-78.3)