

Title: Presence of the apolipoprotein E -ε4 allele is associated with an increased risk of sepsis progression

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Table S1. APOE genotypic distribution from Zhanjiang, Wuhan and Harbin in Control and Sepsis patients.

Genotype	Control	All patients	p-value	Chi square	Odds ratio (95% CI)
Zhanjiang	n=366	n=231			
<i>E2/E2</i>	4(1.1)	2(0.9)	1.000	0.000	0.790 (0.144-4.350)
<i>E2/E3</i>	56(15.3)	32(13.9)	0.627	0.236	0.890 (0.557-1.423)
<i>E3/E3</i>	257(70.2)	162(70.1)	0.982	0.001	0.996 (0.695-1.427)
<i>E2/E4</i>	4(1.1)	5(2.2)	0.483	0.492	2.002 (0.532-7.535)
<i>E3/E4</i>	41(11.2)	28(12.1)	0.732	0.117	1.093 (0.656-1.823)
<i>E4/E4</i>	4(1.1)	2(0.9)	1.000	0.000	0.790 (0.144-4.350)
<i>APOE4+</i>	49(13.4)	35(15.2)	0.546	0.364	1.155 (0.723-1.846)
<i>APOE4-</i>	317(86.6)	196(84.8)			
Wuhan	n=140	n=213			
<i>E2/E2</i>	1(0.7)	1(0.5)	0.767	0.088	0.656 (0.041-10.569)
<i>E2/E3</i>	21(15.0)	24(11.3)	0.304	1.058	0.720 (0.384-1.350)
<i>E3/E3</i>	88(62.9)	128(60.1)	0.602	0.272	0.890 (0.574-1.380)
<i>E2/E4</i>	5(3.6)	7(3.3)	1.000	0.000	0.917 (0.285-2.950)
<i>E3/E4</i>	24(17.1)	53(24.9)	0.085	2.967	1.601 (0.935-2.742)
<i>E4/E4</i>	1(0.7)	0(0.0)	0.173	1.854	-
<i>APOE4+</i>	30(21.4)	60(28.2)	0.155	2.021	1.438 (0.870-2.376)
<i>APOE4-</i>	110(78.6)	153(71.8)			
Harbin	n=193	n=157			
<i>E2/E2</i>	2(1.0)	1(0.6)	1.000	0.000	0.612 (0.055-6.814)
<i>E2/E3</i>	23(11.9)	28(17.8)	0.119	2.435	1.604 (0.883-2.915)
<i>E3/E3</i>	137(71.0)	106(67.5)	0.484	0.491	0.850 (0.538-1.341)
<i>E2/E4</i>	2(1.0)	3(1.9)	0.816	0.054	1.860 (0.307-11.274)
<i>E3/E4</i>	28(14.5)	19(12.1)	0.511	0.431	0.811 (0.434-1.516)
<i>E4/E4</i>	1(0.5)	0(0.0)	0.275	1.193	-
<i>APOE4+</i>	31(16.1)	22(14.0)	0.595	0.283	0.852 (0.471-1.540)
<i>APOE4-</i>	162(83.9)	135(86.0)			

OR: odds ratio, 95% CI : 95% confidence interval ratio

Table S2. *APOE* genotypic distribution from Zhanjiang, Wuhan and Harbin with Sepsis subtype and Septic shock.

Genotype	Sepsis subtype	Septic shock	p-value	Chi square	Odds ratio (95% CI)
Zhanjiang	n=110	n=121			
<i>E2/E2</i>	1(0.9)	1(0.8)	0.946	0.005	0.908(0.056-14.699)
<i>E2/E3</i>	15(13.6)	17(14.0)	0.928	0.008	1.035 (0.490-2.187)
<i>E3/E3</i>	82(74.5)	80(66.1)	0.162	1.955	0.666 (0.377-1.179)
<i>E2/E4</i>	1(0.9)	4(3.3)	0.425	0.636	3.726(0.410-33.861)
<i>E3/E4</i>	10(9.1)	18(14.9)	0.178	1.810	1.748 (0.769-3.970)
<i>E4/E4</i>	1(0.9)	1(0.8)	0.946	0.005	0.908(0.056-14.699)
<i>APOE4+</i>	12(10.9)	23(19.0)	0.086	2.940	1.917 (0.904-4.066)
<i>APOE4-</i>	98(89.1)	98(81.0)			
Wuhan	n=126	n=87			
<i>E2/E2</i>	0(0.0)	1(1.1)	0.180	1.798	-
<i>E2/E3</i>	13(10.3)	11(12.6)	0.598	0.279	1.258 (0.536-2.955)
<i>E3/E3</i>	81(64.3)	47(54.0)	0.133	2.260	0.653 (0.374-1.140)
<i>E2/E4</i>	2(1.6)	5(5.7)	0.200	1.646	3.780(0.716-19.950)
<i>E3/E4</i>	30(23.8)	23(26.4)	0.663	0.190	1.150 (0.613-2.156)
<i>E4/E4</i>	0(0.0)	0(0.0)	-	-	-
<i>APOE4+</i>	32(25.4)	28(32.2)	0.279	1.172	1.394 (0.763-2.547)
<i>APOE4-</i>	94(74.6)	59(67.8)			
Harbin	n=105	n=52			
<i>E2/E2</i>	1(1.0)	0(0.0)	0.369	0.808	-
<i>E2/E3</i>	16(15.2)	12(23.1)	0.227	1.458	1.669 (0.723-3.851)
<i>E3/E3</i>	76(72.4)	30(57.7)	0.064	3.421	0.520 (0.259-1.045)
<i>E2/E4</i>	1(1.0)	2(3.8)	0.231	1.435	4.160(0.368-46.972)
<i>E3/E4</i>	11(10.5)	8(15.4)	0.375	0.788	1.554 (0.584-4.134)
<i>E4/E4</i>	0(0.0)	0(0.0)	-	-	-
<i>APOE4+</i>	12(11.4)	10(19.2)	0.185	1.757	1.845 (0.739-4.607)
<i>APOE4-</i>	93(88.6)	42(80.8)			

OR: odds ratio, 95% CI : 95% confidence interval ratio

Table S3. The allele frequency distribution in the *APOE4+* and *APOE4-* groups or *APOE2+* and *APOE2-* between 30-day surviving and non-surviving sepsis

Genotype	Survivors	Non-survivors	P
	n=464	n=137	
<i>APOE4+</i>	82	35	0.041
<i>APOE4-</i>	382	102	
	n=464	n=137	
<i>APOE2+</i>	72	31	0.053
<i>APOE2-</i>	392	106	