Table 5. Multivariate-adjusted Relative Risk (RR) and 95% Confidence Intervals (CI) of Elements Significantly Correlated with Arsenic on the Development of Cancer at all Sites Combined among Residents of the Lanyang Basin, Taiwan

Variable	Ca	Fe	Mg	Cr	Ba	Be	Mn
Age							
Each one year increase	1.1 (1.0-1.1)***	1.1(1.0-1.1)***	1.1(1.0-1.1)***	1.1(1.0-1.1)***	1.1(1.0-1.1)***	1.1(1.0-1.1)***	1.1 (1.0-1.1)***
Sex							
Female	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Male	1.1 (0.6-1.7)	1.0 (0.6-1.7)	1.0 (0.6-1.7)	1.0 (0.6-1.7)	1.0 (0.6-1.7)	1.0 (0.6-1.7)	1.1 (0.7-1.8)
Cigarette Smoking							
No	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Yes	1.3 (0.8-2.1)	1.3 (0.8-2.1)	1.3 (0.8-2.1)	1.3 (0.8-2.1)	1.2 (0.8-2.1)	1.3 (0.8-2.1)	1.2 (0.7-2.0)
Alcohol consumption							
No	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Yes	1.2 (0.8-1.8)	1.2 (0.8-1.8)	1.2 (0.8-1.8)	1.2 (0.8-1.8)	1.2 (0.8-1.8)	1.2 (0.8-1.8)	1.1 (0.7-1.7)
Concentration in well water (ug/L)							
First tripletile	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Second tripletile	1.2 (0.8-1.8)	0.9 (0.6-1.4)	0.9 (0.6-1.3)	1.4 (0.9-2.3)	1.6 (1.0-2.4)*	1.2 (0.8-2.0)	0.6 (0.4-0.9)*
Third tripletile	1.2 (0.8-1.7)	0.8 (0.5-1.2)	0.8 (0.5-1.1)	1.2 (0.7-1.9)	1.3 (0.9-2.0)	0.9 (0.6-1.4)	0.5 (0.4-0.8)***

§ 0.05 < p < 0.1,* 0.01 < p < 0.05 , ** 0.001 < p < 0.01 , *** p < 0.001.

Table 6. Multivariate-adjusted Relative Risk (RR) and 95% Confidence Intervals (CI) of Manganese and Its Synergistic Interaction with Arsenic on the Development of Cancer at all Sites Combined among Residents in Lanyang Basin, Taiwan

	Mn	
	Model I	Model II
Variable	RR (95% C.I.)	RR (95% C.I.)
Age		
Each one year increase	1.1 (1.0-1.1)***	1.1 (1.0-1.1)***
Gender		
Female	1.0	1.0
Male	1.1 (0.7-1.8)	1.1 (0.7-1.8)
Cigarette smoking		
No	1.0	1.0
Yes	1.2 (0.7-2.0)	1.3 (0.8-2.1)
Concentration in well water (μ g/L)		
First tripletile	1.0	
Second tripletile	0.6 (0.4-0.9)*	
Third tripletile	0.5 (0.4-0.8)***	
Cumulative arsenic exposure (ug/L-year) /concentration (ug/L)		
≤ 2000[a] / high[b]		1.0
> 2000/ high		0.8 (0.5-1.4)
≤ 2000 / low		1.6 (1.1-2.4)*
> 2000 / low		1.2 (0.8-1.8)

§ 0.05 < p < 0.1, * 0.01 < p < 0.05, ** 0.001 < p < 0.01, *** p < 0.001.
[a] Cumulative arsenic exposure at 2000 was calculated based on the product of MCL of arsenic in water (50 ug/L) and the average duration of drinking well water for the study subjects (40 years).
[b] High concentration of Mn indicating the level of Mn greater than its mean.