

**Table S1.** Significant predictors of dementia after trigeminal neuralgia diagnosis.

Variables	Adjusted HR*	95% CI	P-value
Age	2.89	(2.08-4.04)	<0.001
Depression	2.80	(1.77-4.44)	<0.001
Parkinson's disease	1.99	(1.23-3.21)	0.005
Charlson Comorbidity Index score	1.76	(1.13-2.75)	0.012
Traumatic brain injury	1.81	(1.15-2.86)	0.011
Coronary artery disease	1.70	(1.08-2.68)	0.022

HR, hazard ratio; 95% CI, 95% confidence interval. \*Adjusted HR and 95% CI were estimated by stepwise Cox proportional hazards regression method; the model was adjusted for age, sex, Charlson Comorbidity Index score, relevant comorbidities, and medications.

**Table S2.** Joint effect of trigeminal neuralgia and comorbidities on dementia risk.

Variables		<i>n</i>	Dementia	Rate	Adjusted HR* (95% CI)
<b>Trigeminal neuralgia</b>	<b>Depression</b>				
No	No	2494	120	3.24	1.00 (Reference)
No	Yes	554	75	9.49	2.03 (1.49-2.74) <sup>&amp;</sup>
Yes	No	491	29	10.13	3.68 (2.25-6.00) <sup>&amp;</sup>
Yes	Yes	271	55	36.19	10.51 (6.78-16.28) <sup>&amp;</sup>
<b>Trigeminal neuralgia</b>	<b>Parkinson's disease</b>				
No	No	2937	157	3.62	1.00 (Reference)
No	Yes	111	38	25.14	2.42 (1.67 -3.49) <sup>&amp;</sup>
Yes	No	694	58	14.56	4.67 (3.11 -7.00) <sup>&amp;</sup>
Yes	Yes	68	26	64.72	9.81 (5.89 -16.40) <sup>&amp;</sup>
<b>Trigeminal neuralgia</b>	<b>Traumatic brain injury</b>				
No	No	2578	132	3.47	1.00 (Reference)
No	Yes	470	63	9.34	1.60 (1.18-2.18) <sup>#</sup>
Yes	No	573	52	15.59	4.45 (2.92-6.78) <sup>&amp;</sup>
Yes	Yes	189	32	30.53	7.25 (4.47-11.87) <sup>&amp;</sup>
<b>Trigeminal neuralgia</b>	<b>Coronary artery disease</b>				
No	No	2658	140	3.57	1.00 (Reference)
No	Yes	390	55	9.82	1.10 (0.79-1.54)
Yes	No	634	51	14.18	3.94 (2.57-6.02) <sup>&amp;</sup>
Yes	Yes	128	33	41.85	6.14 (3.78-10.00) <sup>&amp;</sup>

Rate, incidence rate per 1000 person-years; CI, confidence interval; HR, hazard ratio. \* Model adjusted for age, sex, Charlson Comorbidity Index score, relevant comorbidities, and medications. <sup>&</sup>  $p < 0.001$ . <sup>#</sup>  $p = 0.003$ .