

Supplementary Material

Article Title: Risk of Cardiovascular Diseases and Stroke Events in Methamphetamine Users: A 10-Year

Follow-Up Study

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Methamphetamine Group

Subjects who were newly diagnosed as methamphetamine users (ICD-9 codes 304.4, 305.7, 292^a) were selected from the Psychiatric Inpatient Medical Claims (PIMC) dataset between 1997 and 2000. (n = 1,379)

- (1) Previously diagnosed with any cardiovascular diseases or stroke events ^b before the index date. (n = 54)
- (2) Subjects whose sex and birth date were unclear. (n = 4)

A total of 1,315 subjects were included in the final methamphetamine group cohort.

Comparison Group

Subjects who were admitted to hospital from 1997 to 2000 were selected from the Longitudinal Health Insurance Database. (n = 191,678)

Exclusion criteria:

- (1) Previously diagnosed with any cardiovascular diseases or stroke events before the index date. (n = 11.858)
- (2) Previously diagnosed as methamphetamine user (ICD-9 codes 304.4, 305.7 & 292^a) before the index date. (n = 781)
- (3) Subjects whose sex and birth date were unclear. (n = 13)

A total of 177,312 subjects were included in the final comparison group cohort.

Methamphetamine group: 1,315 subjects.

Comparison group: 5,260 subjects.

Matching by propensity score

Follow up to the date of any cardiovascular diseases or stroke events, death, or the end of 2010 (censor). (the earliest date identified)

^a At least one diagnosis of drug-induced mental disorder (ICD-9 code of 292), excluding those not induced by methamphetamine (excluding those who in the prior year or 1 year after diagnosis of ICD-9 code 292 had any primary and secondary ICD code of 304.0*, 304.1*,304.2*, 304.3*, 304.5*, 304.6*,304.7*, 304.8*, 304.9*,305.0*, 305.1,305.2*, 305.3*, 305.4*, 305.5*,305.6*,305.8*,305.9*).

^bThe ICD-9 codes for cardiovascular diseases or stroke events are 390–398, 401–405, 410, 411, 413, 414, 420–426, 429, 430–432, 433–435, and 436.

^cThe comparison control group was matched with the methamphetamine group based on the decimal 8-digit match algorithm for propensity scores. The scores were obtained in the multivariate logistic regression with covariates including sex, age, Charlson comorbidity index (CCI) score, urbanization, and index year of the population.

Supplemental e-Table 1. Incidence of cardiovascular diseases and stoke events in the methamphetamine cohort and secondary comparison group (i.e., patients hospitalized for appendectomy) matched by propensity scores in a ratio of 1:1

	Methamphetamine chort $(n = 1,077)$		Comparison control group $(n = 1,077)$		Hazard ratio	95%CI	1	
							p-value	
	N	Incidence ^a	N	Incidence ^a				
Cardiovascular disease or stroke event	97	85.2	48	39.3	2.12	1.50-3.00	<0.001	**
Cardiovascular disease	59	50.9	32	26.1	1.89	1.23-2.90	0.004	**
Acute coronary syndrome	0	0	1	0.8	-	-	0.998	
Coronary artery disease	17	14.2	6	4.8	2.88	1.13-7.29	0.026	*
Arrhythmia	17	14.2	7	5.6	2.46	1.02-5.93	0.045	*
Congestive heart failure	6	5.0	1	0.8	6.16	0.74-51.13	0.092	
Hypertensive disease	25	21.0	18	14.5	1.41	0.77-2.58	0.271	
Others	6	5.0	6	4.8	1.01	0.33-3.14	0.984	
Stroke event	44	37.1	20	16.0	2.32	1.37-3.93	0.002	**
Hemorrhagic stroke	24	20.0	10	8.0	2.53	1.21-5.28	0.014	*
Ischemic stroke	17	14.1	10	8.0	1.77	0.81-3.86	0.153	
Subarachnoid stroke	9	7.5	0	0	0	0	0	

**P<0.01,*P<0.05;

^aPer 10,000person-years;