

Supporting Information

Relationship between urinary *N*-desmethyl-acetamiprid and typical symptoms including neurological findings: A prevalence case-control study

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S8-1. Table. The clinical course of TSG and urinary levels of DMAP and NNs

Case No.	Age	Gender	Onset of neo-nicotinic symptoms (days ago)	Number of days for improvement	Food and beverage intake more than fruits 500g/day or tea beverage 500mL/day suspected	headache general fatigue palpitation/chest pains abdominal pain muscle symptoms cough postural finger tremor recent memory loss fever (>37 centigrade)	Symptoms			Comorbidity			ECG	Urine analysis			DMAP (nmol/mmol Cr)				
							+	+	+	+	+	+	+	+	+	+					
1	12	M	U.N.	N.I.	black tea	+ + + + + - + + +	Psychiatry disease(-3yrs)			-	+	-	-	-	N.E.	N.E.	<LOD	<LOD	<LOD	<LOD	<LOD
2	16	M	>365	N.I.	black tea	+ + + + + - + + +	Psychiatry disease			+ + +	-	-	-	-	N.E.	N.E.	<LOD	<LOD	<LOD	<LOD	<LOD
3	56	F	45	5	green juice, black tea	+ + + + + + + + +	- sleepless			+ +	-	-	-	-	7.7	8.2	<LOD	<LOD	<LOD	<LOD	<LOQ
4	62	F	1	N.I.	Japanese pear, peach	+ + + + + - + + +	low consciousness level JCS-1			- +	-	-	-	-	N.D.	N.D.	<LOD	<LOD	<LOD	<LOD	<LOQ
5	16	M	365	N.I.	unknown	+ + + + + - + + +	none			+ +	-	-	-	-	13.8	6.5	<LOD	<LOD	<LOD	<LOD	0.31 <LOQ
6	14	F	0.25	U.N.	cucumber, cabbage, other fresh vegetables	+ + + + + - + + +	low consciousness level JCS-1, involuntarily movement			+ +	-	-	-	-	2.3	1.7	<LOD	<LOD	<LOD	<LOD	<LOD
7	40	F	425	180	unknown	+ + + + + - + + +	electromagnetic sensitivity, fibromyalgia			+ +	-	-	-	-	4.5	2.6	<LOD	<LOD	<LOD	<LOD	<LOQ
8	51	F	21	7	vegetable juice	+ + + + + + + + +	difficulty in writing and stepping, anxiety			- +	-	-	-	-	0.7	6.2	<LOD	<LOD	<LOD	<LOD	<LOQ
9	36	M	1	9	apple, strawberry, orange, green tea, Oolong tea	+ + + + + + + + +	diabetete mellitus			+ +	-	-	3+	7.6	4.4	<LOD	<LOD	<LOD	<LOD	0.44 <LOD	
10	13	F	1	U.N.	Oolong tea	+ + + + + + + + +	none			+ +	-	-	-	-	8.0	3.7	<LOD	<LOD	<LOD	<LOD	0.58 <LOD
11	5	F	U.N.	1	Jasmine tea	+ + + + + + + + +	none			+ +	-	-	-	-	5.2	6.9	<LOD	<LOD	<LOD	<LOD	2.8
12	39	F	>2000	50	Po'er tea	+ + + + + + + + +	panic syndrome			- +	a	-	-	-	2.7	0.2	<LOD	<LOD	<LOD	<LOD	<LOD
13	62	F	>365	21	Oolong tea, vagetables	+ + + + + - + + +	edema, hyperlipidemia, blood creatine was W.N.L.			- +	-	-	-	-	8.3	4.9	<LOD	<LOD	0.54	<LOD	0.24 <LOD
14	11	F	14	3	strawberry	+ + - + + + + + +	nausea			- +	b	-	-	3+	8.0	6.7	<LOD	<LOD	<LOD	<LOD	3.6
15	48	M	0.5	U.N.	vegetable salad, pumpkin soup	+ + + + + + + + -	none			- +	c	-	-	-	26.6	8.1	<LOD	<LOD	<LOQ	<LOD	<LOD
16	22	F	4	53	Oolong tea, green tea	+ + + - + + + + +	none			+ +	-	-	-	-	3.9	5.2	<LOD	<LOD	<LOD	<LOD	3.0
17	13	M	90	U.N.	green tea, Oolong tea, apple juice	+ + + + - + + + -	severe migraine with orthostatic dysregulation			+ +	-	-	-	-	15.7	2.9	<LOD	<LOD	<LOD	<LOD	<LOQ
18	69	F	1000	203	green juice, apple juice, tea leaves	+ + + + - + + + -	involuntary movement of head			+ +	-	-	-	-	1.2	0.2	<LOD	<LOD	<LOD	<LOD	<LOD
19	49	F	1000	165	unknown	+ + + + + - + + -	auditory and visual hallucination			- +	d	-	-	-	15.1	5.1	<LOD	<LOD	<LOD	<LOD	<LOQ

a: bradycardia, right ventricular electrical conduction delay; b: QT prolongation; c: left bundle branch block; d: bradycardia, QT prolongation

N.I.: not improved; U.N. : unknown; N.E.: not examined; JCS: Japan Coma Scale; W.N.L.: with in normal limit; <LOD: less than limit of detection; <LOQ: less than limit of quantification but more than limit of detection

S8-2. Table. The clinical course of ASG and and urinary levels of DMAP and NNs

Case No.	Age	Gender	Onset of neo-nicotinic symptoms (days ago)	Number of days for improvement	Food and beverage intake more than fruits 500g/day or tea beverage 500mL/day suspected	Symptoms								Comorbidity			ECG		Urine analysis											
						headache	general fatigue	palpitation/chest pains	abdominal pain	muscle symptoms	cough	postural finger tremor	recent memory loss	fever (>37 centigrade)				ST-T change	others	protein	occult blood	ketone bodies	u-Cre (mmol/L)	UCCR (μg/mmol Cr)	Imidacloprid (nmol/mmol Cr)	Thiacloprid (nmol/mmol Cr)	Nitrenpyram (nmol/mmol Cr)	Clothianidin (nmol/mmol Cr)	Acetamiprid (nmol/mmol Cr)	Thiamethoxam (nmol/mmol Cr)
1	31	F	24	U.N.	Green tea, apple	+	+	+	+	+	-	+	-	-	none		+	-	-	-	-	N.E.	N.E.	<LOD	<LOD	<LOD	<LOD	<LOD	>LOQ	
2	31	F	7	U.N.	Japanese pear, peach, grapes	+	+	+	+	+	-	+	-	-	none		+	+	-	-	-	18.9	8.4	<LOD	<LOD	<LOD	<LOQ	<LOD	0.35	<LOQ
3	40	M	U.N.	U.N. unknown		-	-	-	-	-	+	-	-	-	urticaria		-	-	a	-	-	1.6	0.1	<LOD	<LOD	<LOQ	<LOD	<LOD	<LOD	<LOD
4	63	F	1	35	Oolong tea, Japanese pear, gree	+	+	+	-	+	-	+	+	-	none		-	-	b	-	-	4.2	3.7	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
5	65	M	20	13	Apple	+	+	-	+	-	-	-	-	-	ESR 101mm/60 min, CRP 5.7		+	-	c	-	-	5.1	3.2	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
6	17	F	6	18	tea drinks	+	+	-	+	-	+	+	+	+	ulcerative colitis (10 days after)		-	-	-	-	-	7.1	1.8	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
7	13	M	1500	66	green tea, Japanese pear	+	+	-	+	-	+	+	-	-	Pneumonia		+	-	-	-	-	10.7	8.8	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
8	78	F	21	145	green tea, orange	+	-	-	-	-	+	+	-	-	Kaposi varicelliform eruption, edema, malignant lymphoma		-	-	-	-	-	1.2	1.6	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
9	5	F	21	U.N.	peach, peach juice	+	+	+	+	-	+	+	-	+	Mycoplasma pneumonia (2 days after)		+	-	-	-	-	4.1	6.9	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
10	39	F	U.N.	U.N.	black tea	+	+	+	-	-	-	-	-	-	none		-	-	d	-	-	3.1	1.3	<LOD	0.18	<LOQ	<LOD	<LOD	<LOD	<LOD
11	7	F	7	U.N.	black tea	+	+	+	-	+	+	+	+	+	none		-	-	-	-	-	1.3	0.5	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
12	12	M	2	39	green tea, grapes	+	+	-	-	+	-	-	-	-	none		-	-	e	-	-	1.3	0.5	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
13	6	F	1	28	grapes	+	+	+	-	+	+	+	+	+	none		-	-	-	-	-	2.2	0.9	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
14	11	M	60	U.N.	U.N.	+	+	+	-	+	+	+	-	+	none		-	-	-	-	-	2.2	2.2	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
15	47	F	U.N.	28	green tea	+	+	-	-	+	+	+	-	-	Kaposi varicelliform eruption, trichophytia, atypical mycobacteriosis		-	-	d, e	-	-	1.6	1.3	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
16	30	M	U.N.	U.N.	U.N.	+	+	+	-	-	+	-	-	-	atopic dermatitis (whole body)		-	-	g	-	-	26.9	9.8	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD

a: short PR time; b: atrial fibrillation; c: WPW syndrome; d: right ventricular conduction delay; e: junctional rhythm; f: ventricular conduction delay

N.I.: not improved; U.N. : unknown; N.E.: not examined; JCS: Japan Coma Scale; W.N.L.: with in normal limit; <LOD: less than limit of detection;

<LOQ: less than limit of quantification but more than limit of detection