



# Metabolic Syndrome Accelerates the Age-Related Increase of Intraductal Papillary Mucinous Neoplasm of the Pancreas

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**Supplemental Table 1. Details of cases without a pancreatic cyst as revealed by abdominal ultrasound**

	No. of cyst present cases (n=303)	Cyst identified by MRCP (n=235)	Cyst identified by CT scan (n=68)
Total number of close examinations	5.2% (16/303)	6.4% (15/235)	1.5% (1/68)
Abnormal findings at liver	1.4% (2/139)	1.6% (2/125)	0% (0/14)
Abnormal findings at bile duct	35.7% (5/14)	35.7% (5/14)	0% (0/0)
Abnormal findings at gall bladder	10.0% (8/80)	11.4% (8/70)	0% (0/10)
Abnormal findings at urinary system	0% (0/42)	0% (0/21)	0% (0/21)
Abnormal findings at adrenal gland	0% (0/6)	0% (0/2)	0% (0/4)
Abnormal findings at spleen	0% (0/2)	0% (0/2)	0% (0/0)
Others	5.0% (1/20)	0% (0/1)	5.3% (1/19)

**Supplemental Table 2. Characteristics of subjects according to the presence or absence of IPMN**

	Total number	IPMN cases	non-IPMN cases	Pancreatic cyst absent cases	p-value
All patients	9363	129	69	9165	
Mean age $\pm$ SD (years)	50.6 $\pm$ 10.2	62.2 $\pm$ 9.7	60.2 $\pm$ 11.3	50.4 $\pm$ 10.2	<0.001
Sex					0.320
Men	3631 (38.8%)	57 (44.2%)	30 (43.5%)	3544 (38.7%)	
Women	5732 (61.2%)	72 (55.8%)	39 (56.5%)	5621 (61.3%)	
BMI (kg/m <sup>2</sup> )					0.009
$\geq 25$	1131 (12.1%)	26 (20.2%)	5 (7.3%)	1100 (12.0%)	
<25	8232 (87.9%)	103 (79.8%)	64 (92.7%)	8065 (88.0%)	
Smoking status					0.490
Never	6361 (67.9%)	88 (68.2%)	44 (63.8%)	6229 (66.7%)	
Former	1657 (17.7%)	27 (20.9%)	16 (23.2%)	1614 (17.7%)	

Current	1345 (14.4%)	14 (10.9%)	9 (13.0%)	1322 (14.4%)	
Alcohol consumption					0.680
≥20 g/day	2458 (26.3%)	35 (27.1%)	15 (21.7%)	2408 (26.3%)	
<20 g/day	6905 (73.8%)	94 (72.9%)	54 (78.3%)	6757 (73.7%)	
Hypertension					<0.001
Presence	1050 (11.2%)	39 (30.2%)	15 (21.7%)	996 (10.9%)	
Absence	8313 (88.8%)	90 (69.8%)	54 (78.3%)	8169 (89.1%)	
Hyperlipidemia					<0.001
Presence	3110 (33.2%)	67 (51.9%)	23 (33.3%)	3020 (33.0 %)	
Absence	6253 (66.8%)	62 (48.1%)	46 (66.7%)	6145 (67.0%)	
Diabetes					<0.001
Presence	259 (2.8%)	10 (7.8%)	5 (7.3%)	244 (2.7%)	
Absence	9104 (97.2%)	119 (92.2%)	64 (92.7%)	8921 (97.3%)	
Metabolic syndrome					<0.001
Presence	369 (3.9%)	16 (12.4%)	2 (2.9%)	351 (3.8%)	

Absence	8994 (96.1%)	113 (87.6%)	67 (97.1%)	8814 (96.2%)
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(%) indicates the proportion of cases exhibiting specific clinical features of IPMN or non-IPMN.

BMI, body mass index