

Table 1. Characteristics of patients' basic conditions

Index	Uric acid stone	Non-uric acid stone	P-value
Gender (male/female)	80/27	432/233	0.046
Age (years)	52.37±15.68	52.80±11.94	0.79
BMI	26.61±3.52	26.37±3.77	0.535
Hypertension (yes/no)	71/36	293/372	< 0.001
Diabetes (yes/no)	20/87	162/503	0.200
CCVD (yes/no)	21/86	95/570	0.151
Metabolic syndrome (yes/no)	34/73	210/455	0.968
Recurrent stone (yes/no)	35/72	173/492	0.147
Multiple stones (yes/no)	38/69	298/367	0.072

Table 2. Comparison of blood test results between the two groups of patients.

Index	Uric acid stone	Non-uric acid stone	P-value
Blood sodium (mmol/l)	142.34±2.14	143.04±2.09	0.002
Blood potassium (mmol/l)	3.97±0.38	3.84±0.40	0.002
blood chlorine (mmol/l)	107.40±6.31	107.01±2.38	0.535
Blood calcium (mmol/l)	2.39±0.18	2.36±0.12	0.079
Blood phosphorus (mmol/l)	1.16±0.27	1.13±0.22	0.190
Blood magnesium (mmol/l)	0.96±0.09	0.94±0.08	0.075
Anion gap (mmol/l)	14.64±1.91	14.12±1.90	0.01
Urea (mmol/l)	6.61±3.16	5.68±2.01	0.004
Blood creatinine (umol/l)	99.78±52.54	85.78±36.29	0.009
Blood glucose (mmol/l)	5.19±1.22	5.25±1.35	0.190
Uric acid (normal/high)	12/95	486/179	< 0.001
HDL (Normal/Abnormal)	70/37	452/213	0.601
LDL (Normal/Abnormal)	76/31	530/135	0.043
VLDL (Normal/Abnormal)	59/48	469/196	0.001
TG (Normal/Abnormal)	43/64	409/256	< 0.001

Table 3. Comparison of urine test results between the two groups of patients

Index	Uric acid stone	Non-uric acid stone	P-value
Sodium in urine (mmol/24h)	116.86±48.37	115.20±44.51	0.74
Potassium in urine (mmol/24h)	23.11±11.43	24.65±14.44	0.292
Chloride in urine (mmol/24h)	108.45±44.17	111.57±43.23	0.49
Calcium in urine (mmol/24h)	3.02±1.84	3.41±1.90	0.045
Phosphorus in urine (mmol/24h)	19.74±11.23	19.92±10.74	0.869
Uric acid in urine (mg/24h)	2262.17±1388.02	1501.77±844.31	< 0.001
Creatinine in urine (mg/24h)	8390.56±3937.15	9105.36±4029.65	0.088
Urine pH	5.62±0.47	5.96±0.55	< 0.001

Table 4. Logistic regression analysis of risk factors for uric acid stone formation

	OR (95%CI)	P 值
Hypertension		
No	1.00	
Yes	2.921 (1.756-4.859)	< 0.01
Blood uric acid		
Normal	1.00	
Abnormal	14.762 (7.735-28.171)	< 0.01
Blood sodium	0.873 (0.784-0.973)	0.014
Uric acid in urine	1.00(1.000-1.001)	< 0.01
Urine Ph	0.398 (0.232-0.682)	0.001