serum uric acid (sUA) and aren't major macronutrient provider in Chinese dietary patterns. The patients with gout onset before age 30 years were defined as early-onset group while the others were defined as control group.

Results: Among 180 gout patients recruited, there were 69 (38.3%) patients in early-onset group and 111 (61.7%) in control group. Compared with control group, gout patients in early-onset group presented significantly higher level of sUA, estimated glomerular filtration rate and proportion of obesity, but lower fraction excretion of uric acid and prevalence of hypertension (table 1, $p<0.05$). The results of diet questionnaire showed that more patients in early-onset group consumed fructose-containing beverages ≥ 3 times/week, but less alcohol, animal organs and tea (all $p<0.05$, figure 1). There were no significantly difference in the consumption of soup, seafood, hotpot and coffee. Consuming fructose-containing beverages ≥ 3 times/week [OR 8.3 (2.5, 27.1), $p<0.001$], alcohol ≥ 1 standard unit/d [OR 0.27 (0.10, 0.80), $p=0.017$] and tea ≥ 3 times/week [OR 0.33 (0.12, 0.92), $p=0.033$] were associated with early-onset gout after adjusted by variables which were significantly different between early-onset group and control group (table 1).

Abstract OP0187 – Table 1. Comparison of clinical characteristics between the early-onset group and control group

Characteristics	all patients (n=180)	early-onset group (n=69)	control group (n=111)	P
Male, n(%)	168 (93.3)	68 (98.6)	100 (90.1)	0.027
Age, years	42.5 $\pm$ 15.5	28.3 $\pm$ 7.2	51.4 $\pm$ 12.4	<0.001
Age of onset, years	37.8 $\pm$ 15.1	23.5 $\pm$ 5.1	46.7 $\pm$ 12.1	<0.001
Duration of gout, years	3.0 (1.0,8.0)	3.0 (2.0,5.0)	3.0 (1.0,7.0)	0.782
Family history, n (%)	63 (35.0)	29 (42.0)	34 (30.6)	0.148
Tophi, n (%)	31 (17.2)	10 (14.5)	21 (18.9)	0.544
sUA, mg/dl	9.0 $\pm$ 2.4	9.9 $\pm$ 2.1	8.7 $\pm$ 2.1	<0.001
FEUA, %	3.9 (2.8,5.2)	3.2 (2.3,4.7)	4.2 (3.0,5.7)	0.002
eGFR, ml/min ^{1.73m} ²	83.2 $\pm$ 19.7	91.3 $\pm$ 17.3	78.3 $\pm$ 19.5	<0.001
Hypertension, n (%)	58 (32.2)	11 (15.9)	47 (42.3)	<0.001
Diabetes mellitus, n (%)	26 (14.4)	7 (10.1)	19 (17.1)	0.276
Dyslipidemia, n (%)	117 (65.0)	44 (63.8)	73 (65.8)	0.873
Body mass index kg/m ²	25.4 $\pm$ 3.5	25.7 $\pm$ 4.1	25.2 $\pm$ 3.0	0.352
Obesity, n (%)	46 (25.6)	24 (34.8)	22 (19.8)	0.034

sUA: serum uric acid; FEUA: fraction excretion of uric acid; eGFR: estimated glomerular filtration rate.

Conclusions: Fructose-containing beverages may be an independent risk factor for gout early-onset in south China. Patient education should emphasise diet management.

Acknowledgements: The present study was supported by Guangdong Natural Science Foundation, China Grant no. 2014A030310086) to Qian-Hua Li.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.6264

OP0188

EFFECTS OF ALLOPURINOL VERSUS FEBUXOSTAT ON CARDIOVASCULAR RISK IN KOREAN PATIENTS WITH GOUT: A NATION-WIDE COHORT STUDY

A. Shin¹, M.H. Kim¹, Y.-J. Ha¹, Y.J. Lee¹, Y. Song², S.C. Kim³, E.H. Kang¹.

¹Division of Rheumatology, Department of Internal Medicine, Seoul National University Bundang Hospital, Sungnam; ²Division of Rheumatology, Department of Internal Medicine, Seoul National University Hospital, Seoul, Korea, Republic Of; ³Division of Pharmacoepidemiology and Pharmacoeconomics, Department of Internal Medicine, Brigham and Women's Hospital, Boston, MA, USA

Background: Gout is associated with an increased risk of cardiovascular (CV) disease.

Objectives: We aimed to investigate comparative CV risk among gout patients who initiated allopurinol versus febuxostat.

Methods: Using the 2002–2015 Korean National Health Insurance Service (KNHIS) data for the whole Korean population, we conducted a cohort study on patients aged ≥ 40 years who had ICD-10 diagnosis code for gout and initiated allopurinol or febuxostat without prior history of urate lowering therapy, excluding those with chronic kidney disease, cancer, or dialysis treatment. The primary outcome was a composite CV endpoint of hospitalisation for myocardial infarction, stroke/transient ischaemic attack, or coronary revascularisation. Secondary outcomes were individual components of the primary outcome, and hospitalisation for heart failure (HF). Follow-up time started from the day after the first date the study drug was initiated and continued through to the earliest date among the following censoring events: discontinuation of the study drugs, outcome occurrence, disenrollment, end of study dataset, or death. After propensity score (PS)-matching with a 4:1 ratio for allopurinol and febuxostat initiators to adjust for baseline confounding, we estimated hazard ratio (HR) and 95% confidence interval (CI) of CV risks in allopurinol initiators versus febuxostat.

Results: We included 39 636 allopurinol initiators PS-matched on 9909 febuxostat initiators with a mean age of 59 years and 78% male. Before PS matching, baseline CV risk factors including hypertension, dyslipidemia, diabetes, and previous ischaemic heart disease were more prevalent in febuxostat initiators. The incidence rate per 100 person-years for primary composite endpoint was 2.33 in allopurinol and 2.12 in febuxostat initiators in the primary as-treated analysis. The HR (95% CI) for the primary outcome associated with allopurinol was 1.18 (0.98–1.42) versus febuxostat. Secondary outcome analyses showed similar results (table 1).

Abstract OP0188 – Table 1. Risk of cardiovascular events in allopurinol versus febuxostat initiators

	Allopurinol (n=39,636)			Febuxostat (n=9,909)			HR (95% CI)
	Events (n)	person- years	Incidence rate per 100 person- year	Events (n)	person- years	Incidence rate per 100 person- year	
AS-TREATED ANALYSIS							
Primary outcome							
Composite CV end point	735	31 605	2.33	133	6272	2.12	1.18 (0.98– 1.42)
Secondary outcomes							
MI	105	31 528	0.33	20	6269	0.32	1.03 (0.64– 1.68)
Coronary revascularisation	215	31 546	0.68	31	6269	0.49	1.42 (0.97– 2.08)
Stroke/TIA	498	31 572	1.58	94	6271	1.50	1.14 (0.91– 1.43)
Heart failure	956	30 611	3.12	206	6108	3.37	1.15 (0.99– 1.34)

Propensity-score matching was used to adjust more than 50 covariates including demographic characteristics, medical comorbidities such as CV risk factors, use of gout specific and non-specific medications, and health care utilisation pattern. CI=confidence interval; CV=cardiovascular; HR=hazard ratio; MI=myocardial infarction; TIA=transient ischaemic attack

Conclusions: In this large Korean population-based cohort study, CV risks appear to be numerically, but not statistically significantly, elevated among allopurinol initiators compared to febuxostat initiators.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.5024