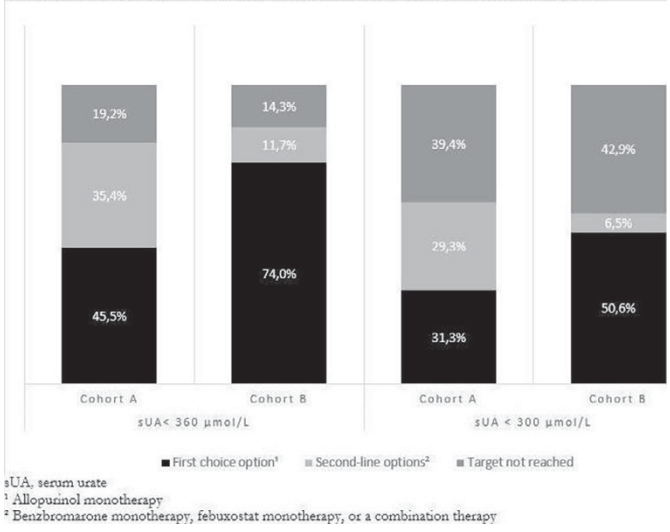
monotherapy failure. Outcome parameters were defined to reflect the EULAR recommendations concerning ULT [3].
Results: A total of 177 patients were included in the study; 99 in cohort A and 78 in cohort B. The majority (N=146, 82.5%) of the included patients from both cohorts were able to meet the predefined sUA target of <360 μmol/L. In addition, more than half (N=104, 58.8%) of the patients reached the stringent sUA target of <300 μmol/L. The proportion of patients reaching sUA targets did not differ significantly (p=0.51) between the cohorts, with 80.8% (n=80) of the patients in cohort A reaching the primary sUA target, compared to 85.7% (n=66) in cohort B (Figure 1). In total, patients following treatment with first-line allopurinol, second-line monotherapy options or second-line combination therapy, 102/124 (82.3%), 25/31 (80.6%) and 19/21 (90.5%) respectively, reached the primary sUA target.

Figure 1: Proportion of patients reaching the EULAR recommended sUA targets in cohort A (n=99) and cohort B (n=77), applying different ULT targeted treatment approaches



sUA, serum urate
¹ Allopurinol monotherapy
² Benzbromarone monotherapy, febuxostat monotherapy, or a combination therapy

Conclusions: This chart review provides a proof-of-concept of the treat-to-target approach in gout patients when a targeted approach with ULT is applied. However, our study also shows that not all patients may reach targets using currently available treatment options. Prospective, pragmatic randomized studies to investigate differences between specific treatment regimes in gout patients, together with costs, safety and patient-reported outcome measures are needed.
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THU0419 RISK OF TOTAL HIP AND KNEE REPLACEMENT IN GOUT PATIENTS PRIOR TO AND FOLLOWING DIAGNOSIS: A NATIONAL POPULATION STUDY IN TAIWAN

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Background: Total joint replacement (TJR) is a major surgical procedure aiming to replace damaged natural joints with artificial prosthesis to restore function and alleviate pain. Total knee replacement (TKR) and total hip replacement (THR) are two common replacement procedures, mainly as a result of osteoarthritis, rheumatoid arthritis, trauma, fracture and infection. Whether gout associates with a greater risk of TJR independent of these primary risk factors is controversial, despite tophaceous or chronic deforming gouty arthritis may lead to joint destruction and subsequent TJR
Objectives: We carried out a case control study using the National Health Insurance (NHI) database with full coverage of the general population of Taiwan to investigate the burden of TJR in gout patients at diagnosis compared to matched controls. We further followed incident gout patients and their matched controls after diagnosis to compare their subsequent risk for TJR.
Methods: The Taiwan National Health Insurance database was used to identify 74,729 new diagnosis gout patients in 2005. These were matched 1:1 to 74,729 controls by birth year and sex with people who did not have gout diagnosis or urate-lowering treatment prescription. Odds ratios (ORs) of total hip or knee replacement (THR or TJR) at diagnosis and hazards ratios (HRs) after diagnosis were estimated adjusted for gender, age at diagnosis, comorbidities, co-medications, place of residence, income and occupation.
Results: Gout was associated with adjusted ORs (95% CIs) of 0.87 (0.54 to 1.40), 1.01 (0.57 to 1.79), 0.93 (0.64 to 1.35) for the THR, TKR and TJR at diagnosis, respectively. The incidence rate of THR or TKR in the patients with gout was 1.60 and 1.76 (per 1,000 person-years) which was higher than matched controls (0.99 and 0.98, respectively). Gout was also associated with an adjusted HR (95% CI) of 1.41 (1.19 to 1.68), 1.37 (1.16 to 1.61) and 1.37 (1.22 to 1.56) for developing THR, TKR and TJR.
Conclusions: Compared to matched controls people with gout did not have an increased risk of TJR at diagnosis but the risk increased substantially after diagnosis. Whether adequate urate-lowering treatment reduces the risk requires further study.
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THU0420 IMPROVED SURVIVAL OF POST-MYOCARDIAL INFARCTION PATIENTS TREATED WITH ZOFENOPRIL COMBINED WITH XANTINE OXIDASE INHIBITORS AS COMPARED TO PLACEBO OR OTHER ACE-I

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Background: Oxidative stress is increased in hyperuricemic patients with acute myocardial infarction (AMI). In these patients, use of sulfhydrylACE-inhibitors (ACEIs), such as zofenopril or captopril, and xanthine oxidase inhibitors (XOIs), may potentially result in an enhanced antioxidant effect and improved survival. However, the benefit of such combination in post-myocardial infarction has never been verified.
Objectives: To test the usefulness of the combination therapy Zofenopril + XOI in improving survival free from MACE in post-AMI patients
Methods: We re-analyzed the data of the four SMILE (Survival of Myocardial Infarction Long-term Evaluation) studies by grouping patients according to the type of ACEIs and the use of XOIs. 165 (31.4%) of the 525 patients were treated with XOIs (79 under zofenopril and 86 under placebo, lisinopril or ramipril), whereas 360 were not (192 zofenopril and 168 placebo or other ACEIs). In these four groups, we separately estimated the 1-year combined risk of major cardiovascular events (MACE, death or hospitalization for cardiovascular causes).
Results: MACE occurred in 10.1% of patients receiving zofenopril + XOIs, in 18.6% receiving placebo or other ACEIs + XOIs, in 13.5% receiving zofenopril without XOIs and in 22.0% receiving placebo or other ACEIs, but no XOIs (p=0.034 across groups). Rate of survival free from MACE was significantly larger in patients treated with zofenopril and XOIs than with other ACEIs with no XOIs [hazard ratio: 2.29 (1.06, 4.91), p=0.034]. A non-significant trend for superiority of zofenopril + XOIs combination was observed vs. zofenopril alone [1.19 (0.54, 2.64), p=0.669] or vs. placebo or other ACEIs combined with XOIs [1.82 (0.78, 4.26), p=0.169].
Conclusions: Our retrospective analysis suggests an improved survival free from MACE in post-AMI patients treated with a combination of an ACEI and urate lowering drug with antioxidant activity.
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THU0421 FEMALE PRIMARY GOUT HAD ITS UNIQUE ULTRASOUND FEATURES

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Background: Primary gout is a metabolic disease occurred in male and post-menopause female in most cases. Though the ultrasound features of gout had been discovered for several years, no reports illuminated whether there would be difference presentations between different genders in the joints.
Objectives: We employed ultrasound instead of dual-energy CT to explore more refined pathological manifestations of primary gout in different genders.
Methods: All cases were confirmed as gout fulfilling 1997 ACR classification criteria. All cases excluded secondary gout induced by drug, tumor, hypertension, diabetes mellitus, renal failure. Ultrasound was performed during chronic stage of gout but not at acute attack. The process was done by 2 observers blinded to