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Video abstract transcript

Prevalence, risk factors, and outcomes of gout flare in patients hospitalized for PCR-confirmed COVID-19: A multicenter retrospective cohort study

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Slide 1:

Hi, my name is Kanon. I am a rheumatologist from Thailand. On behalf of my colleagues, I will be giving a brief overview of our recent paper “Prevalence, risk factors, and outcomes of gout flare in patients hospitalized for PCR-confirmed COVID-19”. In this study, we wanted to learn about the characteristics and outcomes of gout flare in people hospitalized for COVID-19, and then explore factors that could be linked to the risk of flare.

Slide 2:

We hypothesized that gout flares might be more frequent and more severe in people infected with coronavirus, for two reasons: (1) Gout control was reported to be worse during the pandemic, which might put the patient at higher risk for gout flare, and (2) Coronavirus infection could activate inflammasomes, which were major drivers of gout flare.

Slide 3:

Our study is a retrospective cohort study, which included patients with gout who were hospitalized for PCR-confirmed COVID-19 in three centers. We reviewed 8600 admissions and identified 146 people with gout, 18% of whom developed gout flare. The majority of our patients were male and ethnic Southeast Asian. Most common comorbidities are diabetes, obesity and myocardial infarction.

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Slide 4:

People who developed gout flare had several indicators of poor gout control. Compared to people without flare, people with gout flare had lower prevalence of urate-lowering therapy and gout flare prophylaxis, higher serum urate level and higher prevalence of tophus.

Slide 5:

We explored factors that may be associated with the risk of gout flare, using LASSO selection and logistic regression model. We found that being classified as high risk by the GOUT-36 rule was associated with gout flare, with odds ratio of 5.46. The GOUT-36 rule is a simple 4-item clinical tool that helps clinician identify people who are at high risk of developing gout flare during hospitalization. Classification of high-risk for flare requires at least two out of four items.

Slide 6:

Gout flares in our cohort occurred around 7 days after COVID-19 diagnosis, and typically lasted 3 days. The majority of episodes affected only one joint, with ankle as the most common. One-third of gout flare episodes were quite severe, requiring more than one anti-inflammatory agents.

Slide 7:

Finally, gout flare adds at least 3 days to the hospital stay. The association between gout flare and length of stay was significant, even after adjusting for comorbidity and COVID-19 factors.

Slide 8:

In conclusion, gout flare developed in 18% of people hospitalized for COVID-19, especially in people with poorly controlled gout. Gout flare during COVID-19 can be very intense and leads to longer hospital stay. High-risk individuals may be identified using the GOUT-36 prediction rule. Our full paper can be accessed from the journal's website. Thank you.