

Hyperuricemia: When to treat?

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ABSTRACT

Hyperuricemia can lead to gouty arthritis and Nephrolithiasis; however asymptomatic hyperuricemia does not need urate lowering therapies. The treatment should be initiated only if there are two or more acute gout attacks per year, presence of tophi or renal stones or chronic kidney disease stage two or more.

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INTRODUCTION

Serum urate level of more than 7mg/dl is widely accepted reference range for hyperuricemia, though there is no universally accepted definition.¹ Hyperuricemia leading to gout is the most common cause of inflammatory arthritis. The worldwide prevalence for gout 0.1 to 10% with incidence of 0.3-6 cases per 1000 person per year.² In Asia, ethnic groups in Malaysia and China were found to have higher uric acid level compared to other Asian population.³ A study done in Banke district of Nepal showed the prevalence of hyperuricemia in 16.61% among 1487 patients analysed and was higher in females (22.86%) as compared to males (18.98%).⁴

LITERATURE REVIEW

Despite being so prevalent, hyperuricemia is often poorly managed. In addition, studies now have shown the correlation of hyperuricemia with other

cardio metabolic comorbidities as well resulting in poor outcome.⁵ Though hyperuricemia predisposes patients to gout and nephrolithiasis, it is not a sufficient causative factor as shown by multiple studies and treatment is not indicated for asymptomatic hyperuricemia. Gout may not be related to the level of uric acid. However, the acquired causes to lower uric acid level should be addressed.⁶

The first episode of gout is seen usually after decades of hyperuricemia.⁷ On the other hand, the cardiovascular and cutaneous adverse effects of xanthine oxidase inhibitors should be outweighed against the risk of developing gout which is estimated to be around 50%.⁸ Studies have also shown that lowering serum uric acid level in asymptomatic patients doesn't influence the progression to nephropathy except in acute rise as in tumor lysis syndrome and the same dynamic applies for cardiovascular risk.⁹

WHEN TO TREAT?

American College of Rheumatology (ACR) guidelines 2012 recommends the urate lowering therapy in case of established diagnosis of gout with two or more acute gout attacks per year, presence of tophi or renal stones and chronic kidney disease (CKD) stage 2 or more.⁵ The recommended duration of prophylaxis for acute flare up is at least 6 months or 3 months after receiving target urate level in patients without tophi and 6 months of achieving target level for patients with tophi.⁵ However, Japanese guideline recommends the treatment with serum urate above 8 mg/dl to decrease the risk of development of gout and other comorbidities.¹⁰

CONCLUSION

Asymptomatic hyperuricemia should not be started on urate lowering therapies. However, such cases should be evaluated for other co morbidities like hypertension, cardiac or renal disease. Dietary modifications and regular follow up should be advised for those with asymptomatic hyperuricemia.

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