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أكاديمية فقيه الطبية  
Fakeeh Care Academy

فقيه.

مجموعة فقيه للرعاية الصحية  
Fakeeh Care Group

# HYPERURICEMIA

## HYPERURICEMIA

Hyperuricemia is defined as a serum concentration  $> 7 \text{ mg/dL}$  ( $> 412 \text{ } \mu\text{mol/L}$ ). Serum urate concentrations increase with age and are higher in men than in women, increasing in association with the onset of puberty in young men and menopause in women.

### Common medical conditions associated with hyperuricemia:

- Gout.
- Obesity: weight loss can improve hyperuricemia.
- Alcohol abuse.
- Chronic kidney disease.
- Hypothyroidism.
- Myeloproliferative disease, lymphoproliferative diseases, hemolytic anemias, polycythemia Vera, sickle cell disease.
- Hyperparathyroidism, diabetic ketoacidosis.
- Psoriasis.

Other medical conditions associated with hyperuricemia:

#### • Selected drugs such as:

- Cyclosporine and tacrolimus
- Alcohol
- Nicotinic acid
- Lasix (furosemide) (and other loop diuretics)
- Ethambutol
- Aspirin (low dose)
- Pyrazinamide

### When should treatment of asymptomatic hyperuricemia be considered?

In the absence of symptomatic gout flares, there are currently no widely accepted indications for the treatment of asymptomatic hyperuricemia. An exception to this may be in those at high risk for the development of tumor lysis syndrome (e.g., patients with leukemia-initiating chemotherapy).

### The indications for chronic treatment of symptomatic hyperuricemia & how should this be managed:

Lifelong urate-lowering medication is indicated for gout patients characterized by:

- Frequent flares, often defined as more than two to three flares over a 1-year period.
- Renal stones (urate or calcium).
- Tophaceous gout (detected on examination or radiographically).
- Persistent hyperuricemia more than  $13 \text{ mg/dl}$

### Home care instructions:

- Patients should limit/moderate their consumption of:
  - Purine- rich foods such as red meats (particularly organ meats).
  - Seafood (particularly shellfish, sardines, and anchovies).
  - Excessive fructose consumption (sodas, fruit juices, energy drinks) is also associated with increased gout risk.
  - Fructose is metabolized in the liver to ATP which contributes to urate production.
  - In contrast, a moderate intake of purine-rich vegetables (asparagus, cauliflower, spinach, and mushrooms), nuts, legumes (beans and peas), and vegetable protein is not associated with an increased risk of gout.
  - Coffee intake through a non-caffeine mechanism, vitamin C (500 mg/day), reduced-fat dairy intake (low-fat milk, yogurt), and tart cherries may lead to modest reductions in serum urate levels and gout risk.
- Patients also benefit from being informed that frequent consumption of alcohol-containing beverages and sugar-sweetened juices or beverages containing high-fructose corn syrup should be minimized or avoided.
- Weight loss in overweight patients is likely beneficial in reducing serum urate.
- We educate overweight patients with gout about a healthy diet approach aimed at achieving weight reduction (at a rate of three to five pounds per month) toward ideal body weight.

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