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Evaluation and management of gout

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Pages with reference to book, From 282 To 284

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Introduction

Gout is a condition which is characterized by the deposition of monosodium urate crystals in the joints or soft tissue. The disease mainly affects males in third to fifth decades of life.

There are four phases of gout:

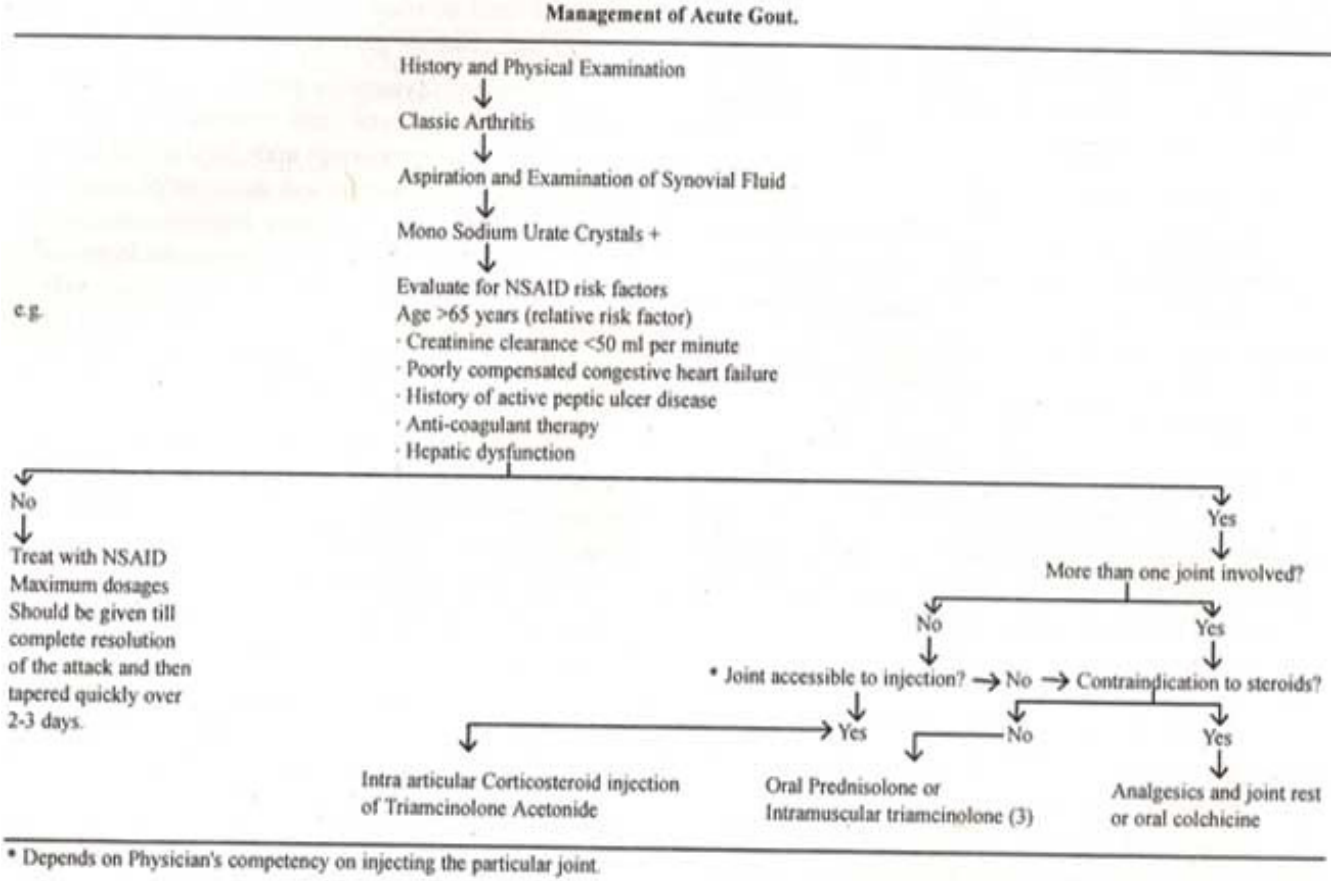
(i) Asymptomatic hyper uricemia
(ii) Acute gouty arthritis.
(iii) Inter critical gout.
(iv) Chronic tophaceous gout.

Clinical Features

1) Asymptomatic hyperuricemia

It is the term used for an abnormally high serum urate level without gouty arthritis or nephrolithiasis, level of >7 mg per dl. This does not require treatment but urate levels should be lowered by dietary changes and weight reduction[1].

ii) Acute gout it s characterized by a sudden onset of pain, erythema, limited range of movements and swelling of the metatarsophalyngeal joint[1,2].



Dosages of drugs used in the management of acute Gout.

Drug	Dosage	Side effects/comments
NSAID (selected)		
Indomethacin (Indocin)	25 to 50 mg four time daily	Contraindicated in patients
Naproxen (Naprosyn)	500 mg two times daily	with peptic ulcer disease or systemic
Ibuprofen (Brufen)	600 mg four times daily	anticoagulation; side effects include
Ketoprofen (Orudis)	75 mg four times daily	gastropathy, nephoropathy, liver dysfunction.
Colchicine	0.5 to 0.6 mg orally every hour until relief or side effects occur, or until a maximum dosages of 6 mg is reached	Dose-dependent gastrointestinal side effects; improper intravenous dosing has caused bone marrow suppression, renal failure and death
Corticosteroids		
Oral	Prednisolone, 0.5 mg per kg on day 1, taper by 5.0 mg each day thereafter.	Fluid retention; impaired wound healing. Contra indications are hypersensitivity, systemic fungal infections and should be used cautiously in patients with diabetes, peptic ulcer disease, osteoporosis, tuberculosis.
Intramuscular	Triamcinolone acetonide[1,3] (Kenalog), 60 mg intramuscularly, repeat in 24 hours if necessary	May require repeat injections; risk of soft tissue atrophy
Intra-articular	large joints: 10 to 40 mg small joint: 5 to 20 mg	Preferable route for monoarticular involvement

iii) Inter critical gout

After recovery from acute gouty arthritis the patient becomes asymptomatic and this phase is known as "inter critical gout"[1]. During this phase secondary causes of hyperuricemia should be explored by reviewing drug history, purine rich foods, alcohol consumption and weight should be reduced.

iv) Chronic tophaceous gout

Tophi are chalky deposits of sodium urate. The most common sites are the joints of the hands and feet. The rate of urate deposition and tophi formation correlates with the duration and severity of hyperuricemia[2].

Diagnosis

A confirmatory diagnosis needs aspiration and examination of synovial fluid which shows presence of monosodium urate crystals[1].

Under polarized light microscopy, urate crystals are bright, needle shaped and yellow. Even under conventional light microscope needle shaped urate crystals are seen[2].

Urate-Lowering Agents

Urate-lowering therapy should not be initiated until the acute attack has completely resolved, since the subsequent rapid decrease in serum urate levels has been shown to exacerbate the gouty attack[4].

Allopurinol (Zyloric) is currently the only readily available inhibitor of uric acid synthesis. It causes a detectable decrease in the serum urate level within the first 24 hours after administration and an expected maximum reduction within two weeks after initiation of therapy. indications for the use of

allopurihol are chronic tophaceous “erosive” gouty arthritis; secondary hyperuricemia related to the use of cytolytics in treatment of hematologic malignancies and gout complicated by renal disease or renal calculi[1,4].

Allopurinol may be. given in a single daily dose of 300 mg. This is the average effective dosage necessary for patients with normal renal function. Frequently, allopurinol therapy is initiated at a dosage of 100 mg per day and increased in increments of 50 to. 100 mg per day every two weeks until the patient’s urate level is less than 6 mg per dL. Side effects from allopurinol include rash, gastrointestinal problems, headache, urticaria and interstitial nephritis.

References

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