

Treatment of gout

Drugs

1. Acute gout attack

- strong anti-inflammatory action
- pain-killers
- inhibition of leucocyte migration to the joint

2. Hyperuricemia therapy / prevention of gout attack

- increase of uric acid excretion
- block of synthesis

+ diet

Treatment of acute gout attack

- **NSAIDs**
 - higher doses (i.m., p.o., p.r.)
 - some have preferably uricosuric effect
 - **indometacine, diclofenac, piroxicam**
- **colchicine**
 - alkaloid obtained from *Colchicum autumnale*
 - p.o. every 2-4 hrs
 - mitotic poison, inhibits phagocytosis and leukocyte migration
 - **AE:** severe diarrhea – rehydratation!
- **glucocorticoids**
 - local adm. (i.a.) – **triamcinolone**
 - systemic (p.o., i.m., i.v.) – **prednison, methylprednisolon**
- **canakinumab**
 - IL-1 inhibitor, human monoclonal antibody
 - patients who do not tolerate NSAIDs and GC
 - s.c. application

Chronic treatment of gout

1. Uricosurics

- inhibit reabsorption of uric acid in primary tubulus

Lesinurad

- only in combination with xantin oxidase inhibitors

Probenecide

- sometimes used with antibiotics or antivirotics to make them stay longer in the body
- unregistered in Czech Rep.

2. Antiuratics

- inhibit synthesis of urine acid by inhibition **xantin oxidase (XO)**



Allopurinol

- isomer of hypoxanthin, competitive inhibition of xanthin oxidase
- inhibits *de novo* synthesis of purines
- not combine with cytostatics of purine structure (azathioprin, 6-mercaptopurin) – allopurinol \uparrow their toxicity!
- **AE:** usually well tolerated, most common:
 - rash, GIT intolerance, hypersensitive reaction

Febuxostat

- **MA:** non-purine inhibitor of xanthinoxidase
- clinical trials proved higher efficacy than allopurinol
- **AE:** gout attacks, liver function abnormalities, diarrhoea, nausea, headache

Pegloticase (recombinant uricase)

- **MA:** transforms uric acid to allantoin with better solubility
- **AE:** anaphylactic shock, reaction to infusion, gout attacks at the beginning of therapy
- i.v. application (only to inpatient)