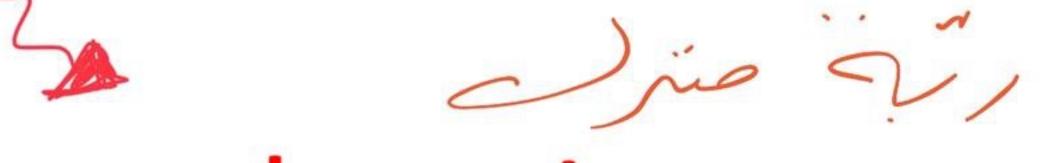
Cox-1



house keeping enzyme,

3. Anti-platelet use:

> Low dose of aspirin 80-100 mg daily are used to prophylactically decrease incidence of transient ischemic attacks (TIAs) & strokes

2. Propioinc acid derivatives

- This class includes Ibuprofen, ketoprofen and Naproxen
- ➤ All are reversible non-selective inhibitors of Cox that inhibit synthesis of PGs

2. Propioinc acid derivatives

- This class includes Ibuprofen, ketoprofen and Naproxen
- ➤ All are reversible non-selective inhibitors of Cox that inhibit synthesis of PGs
- ➤ All possess anti-inflammatory, analgesic & antipyretic activities
- They cause less GI side effects than aspirin and therefore are preferred for chronic use in inflammatory joint diseases and in musculo-skeletal disorders

A. Indomethacin:

- It is more potent than aspirin, but toxicity limits its use to short-term dosing
- >Indications:
- It is useful in treatment of RA,OA, ankylosing spondylitis (AS), and acute gout
- 2. Closure of patent ductus arteriosus in neonate: given by IV infusion within 72 h of birth

B. Sulindac:

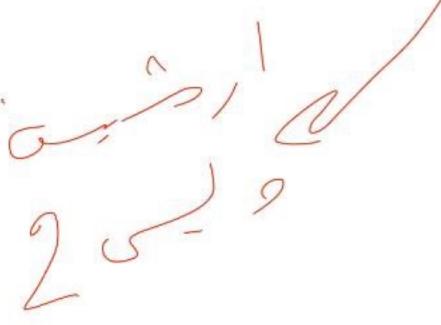
This is a pro-drug

➤ Able to inhibit Cox-1 and Cox-2 but meloxicam shows preferential COX-2 selectivity (preferential Cox-2 inhibitor) ~ V6 1/16

3. Oxicam derivatives:

- > Piroxicam (Feldene) and meloxicam (Mobic)
- ➤ Able to inhibit Cox-1 and Cox-2 but meloxicam shows preferential COX-2 selectivity (preferential Cox-2 inhibitor)

Cox-1 in gastric cytoprotective



Cox-2

Cox-2 is an inducible enzyme produced by inflammatory cells

Aspirin at low dose (80-100 mg/d) irreversibly inhibits the thromboxane A2 (TXA2) synthesis inside platelets via acetylation of Cox-1. (TXA, is a

