ACETAMINOPHEN (N-ACETYLPARA-AMINIPHENOL) (APAP)TOXICITY

Practical Clinical Toxicology

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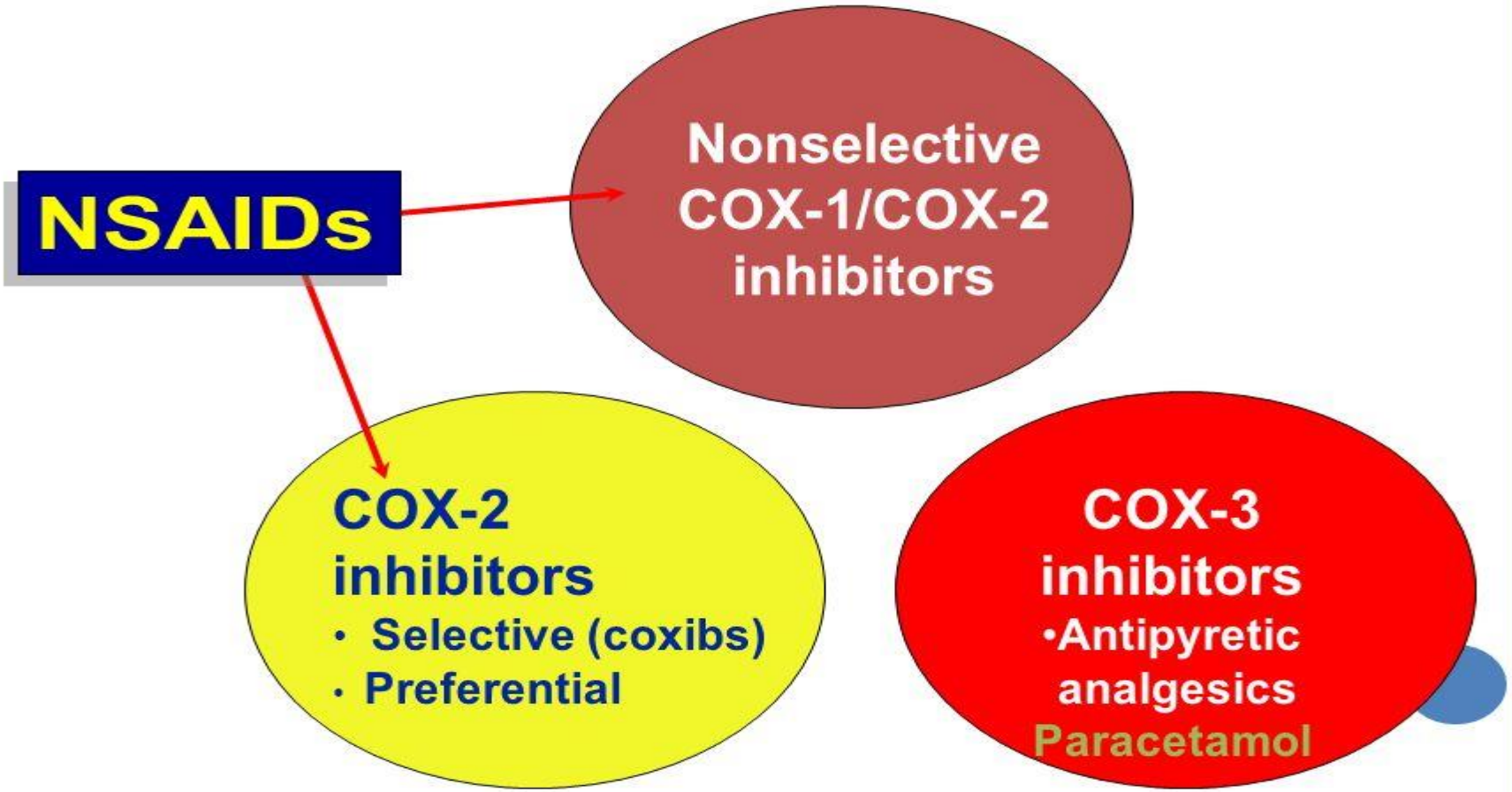
INTRODUCTION TO MECHANISM

- Acetaminophen, also known as Paracetamol, is N-Acetyl Para Amino Phenol (APAP).

Classification of COX inhibitors



EPIDEMIOLOGY

- It is contained in over 100 OTC preparations.

METABOLISM AND EXCRETION

- 90% of acetaminophen is hepatically metabolized to harmless glucuronide (60%) and sulfate (30%) metabolites excreted in urine .

TOXICITY

- NAPQI production exceed hepatic ability to detoxify NAPQI by glutathione conjugation.

ACUTE APAP POISONING

- Phase 1 (up to 24) hours
- Phase 2 (24-72) hours :

- Phase 3 (72-96) hours:
- Phase 4 (4 days-2weeks):

- Chronic APAP poisoning
- (Analgesic nephropathy is injury to the kidney caused by analgesic medications such as aspirin, phenacetin, and paracetamol.

Risk factors

- Increased NAPQI production as a result of cytoP450 enzyme induction

TOXIC DOSE

- Acute overdose is usually considered to be a single ingestion

- Because of

- 1.Age-dependent rate of glutathione turn over that can younger tolerate higher doses.

REFERENCES

1- Gossel TA, Bricker TD, (Eds.); Principles of Clinical Toxicology; latest edition.

2- Viccellio P, (Ed.); Handbook of Medicinal Toxicology; latest edition.

3- journals of pharmacology and toxicology