

Antispasmodic

- Contraction of smooth muscle is known as spasmodic pain.
- Pain is usually present in stomach, intestine, gall bladder.
- Antispasmodics are the drugs that relax the smooth muscle of the gut.
- are used to relieve cramps or spasms of the stomach, intestine, and bladder.
- Drugs are- **Dicyclomine**, **Atropine**, **Hyoscine**, Valethamate bromide, propantheline bromide, **Drotaverine**.

Chandan Shrestha, PhD

Atropine

MOA

- It is Anticholinergic agents which blocks the muscarinic receptors and inhibit the function of acetylcholine.
- The drug has high affinity for muscarinic receptors which binds competitively, preventing acetylcholine (Ach) from binding to these sites and thus prevents parasympathetic actions.
- On smooth muscles, it reduces contraction of muscles.

Dose: 0.6-1 mg po; 0.3mg-0.6mg iv or im in repeated dose

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Atropine

Side effect

The most common side effects are dizziness, drowsiness, lightheadedness, nausea, nervousness, blurred vision, dry mouth, tachycardia, palpitation, constipation, urinary retention.

Indication

- Antidote in organophosphate poisoning
- Used to dilate pupil
- Treatment of parkinsonism
- Relieves from bradycardia
- Spasmodic pain

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Others

- Hyoscine butyl bromide: 10-20mg
- dicyclomine: 10-20mg
- Propantheline bromide: 15-30mg

(Note: MOA and side effect similar to atropine)

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Valethamate bromide

- Anticholinergic agent

Adverse Effect:

- Dry mouth, blurred vision, difficulty in swallowing and talking, constipation, urinary retention, dilatation of pupil, and abnormal heart rhythm

Uses:

- antispasmodic agent; prescribed for dysmenorrhea, GI spasm, post-operation pain, tenesmus (incomplete defecation), urinary tract and bile stone colic.

Drotaverine

MOA

- selective inhibitor of phosphodiesterase 4 and has no anticholinergic effects

Adverse effect

- Vertigo, nausea, vomiting and dry mouth.