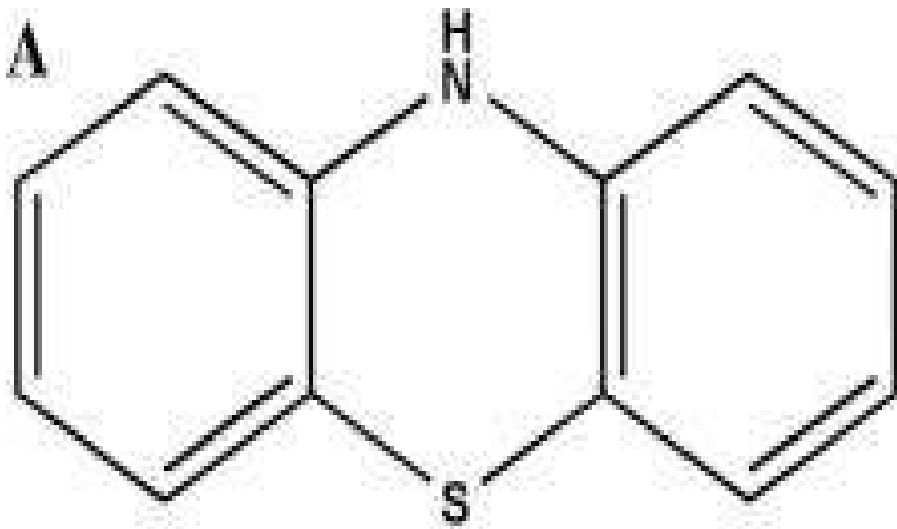


# Xylazine

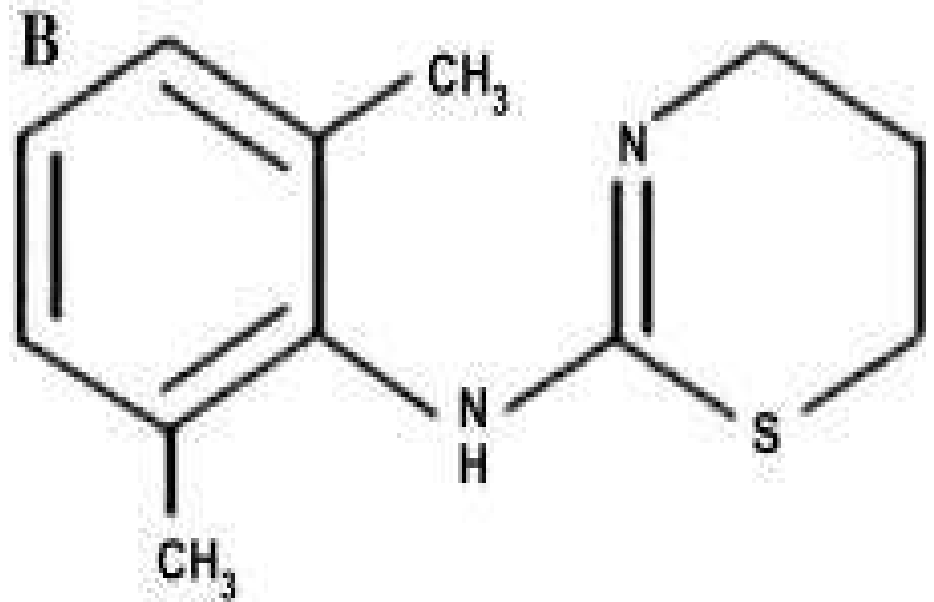
- Xylazine is a drug used in veterinary medicine as a
- sedative with analgesic and muscle relaxant properties. It is
- used on many different animal species such as cattle,
- sheep, horses, dogs, cats, deer, rats, and elk to calm and
- facilitate handling, perform diagnostic and surgical
- procedures, relieve pain, or act as a local anesthetic.
- This non-narcotic agent was first synthesized in 1962 by the Bayer Company.

# Chemistry

- Xylazine is structurally similar to the class of compounds known as phenothiazines



Phenothiazine



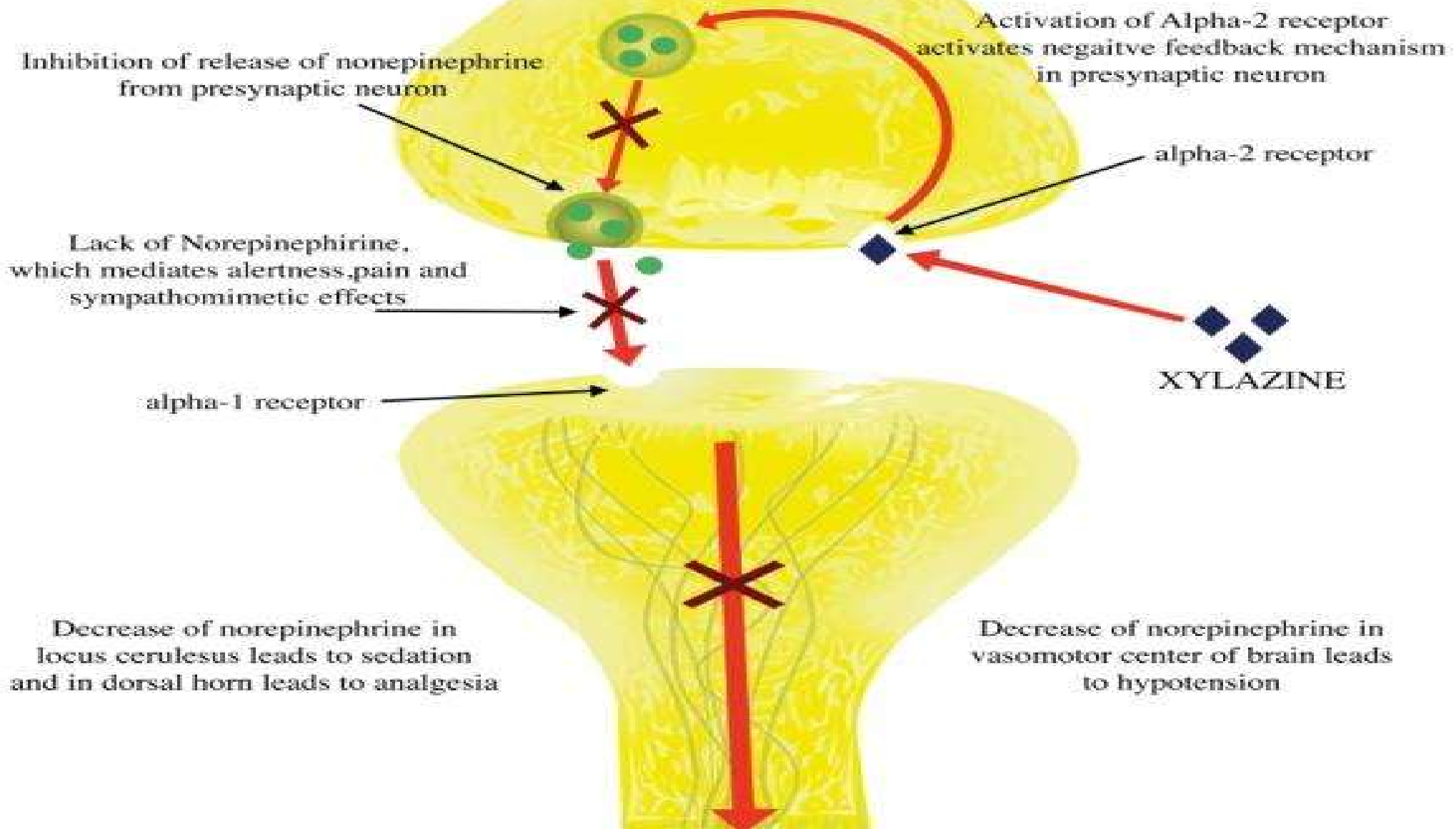
Xylazine

# Pharmacology

- **Xylazine, acting as an agonist at alpha-2 adrenergic receptors**, decreases the release of norepinephrine and dopamine in the central nervous system resulting in effects such as analgesia, sedation and muscle relaxation. Also, xylazine may have cholinergic, serotonergic, dopaminergic, alpha-1 adrenergic, histaminergic or opiate receptor mechanisms.
- Xylazine typically has an onset of effects within a few minutes and lasts up to four hours in animals.

# XYLAZINE Mechanism of Action

Central Nervous System



# Side effects of xylazine

- Drowsiness.
- Low blood pressure.
- Memory problems.
- Open wounds on the skin that may become severe.
- Slow breathing.
- Slow heart rate