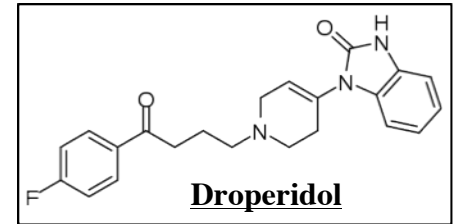


Droperidol

Anesthetic Pearls: Anesthetic Implications and Complications of Droperidol

Droperidol (Inapsine) was a frequently used anti-emetic that came under a great deal of scrutiny approximately 10 years ago. The drug is a Dopamine receptor blocker and has its anti-emetic properties via this presumed mechanism. The complications associated with the use of Droperidol include sedation, agitation, hypotension, and potentially lethal arrhythmias.



I. **Sedation:** Droperidol was often prescribed by Internists for patients who needed help with sleep. It was also effectively used for pre-op sedation; however it was noted that even though patients appeared outwardly calm, they often reported being anxious or terrified inwardly.

II. **Hypotension:** Droperidol blocks alpha receptors and can cause a decrease in SVR. This effect is worse in the hypovolemic patient producing large decreases in the blood pressure (MAP).

III. **Parkinson's Disease:** Droperidol should be avoided in patients being treated for Parkinson's disease because it blocks Dopamine receptors and can therefore lead to exacerbation of Parkinsonian symptoms.

IV. **Arrhythmias:** The FDA issued a "Black Box Warning" in 2001 on the use of Droperidol. There were several reported deaths due to arrhythmias and even cardiac arrest has been attributed to Droperidol usage. The proposed mechanism is prolongation of the QT-interval leading to potentially fatal arrhythmias including "torsades de points" and ventricular fibrillation. The FDA continues to recommend using other anti-emetics as first line treatment options. It is also recommended that if Droperidol is used, a 12-lead ECG must be obtained prior, along with continuous cardiac monitoring during, and 2-3 hours after the dose is given. The study quoted by the FDA used doses of 0.6 - 1.2 mg/kg, much higher (2-3x) than what is commonly used clinically. One of the more interesting side-notes of this issue is that the manufacturer of Droperidol self reported much of the adverse event data based upon the cost of production outweighing profit margin. Also of note is the QT-interval prolongation is inherent within the anti-emetic classes (Ondansetron, Dolasetron, Granisetron, Prochlorperazine).

