

Presentation

- 5mg in 1mL ampoule

Pharmacology

- Competitively blocks postsynaptic dopamine receptors, increases turnover of brain dopamine producing tranquilizing effects **(1)**

Metabolism

- By the liver

Indications

- For the treatment of patients suffering hallucinations and paranoias

Contra-Indications

- Known severe adverse reaction
- Parkinson's disease **(2)**

Precautions

- Patients who have taken alcohol or other drugs may develop severe hypotension
- Altered level of consciousness
- Elderly debilitated patients
- History of dystonic reactions
- Neuroleptic Malignant Syndrome (NMS) **(3)**
- Tardive Dyskinesia **(4)**

Side Effects

- Anxiety & euphoria
- Extrapyramidal reaction
- Hypotension
- Lethargy & drowsiness
- Respiratory depression

Routes of Administration

- Intramuscular

Drug Effect

- Onset - 5 minutes
- Peak - 20 minutes
- Duration - 2 – 3 hours

DOSE

P1 - Paramedic Not authorised for use

P2 - Advanced Skills Paramedic Not authorised for use

P3 - Advanced Care Paramedic Not authorised for use

P4 - Intensive Care Paramedic
ADULT
 I.M.I. 10mg

CHILD
 Not approved

Special Notes:

- Medical consult **is not** required for Haloperidol use in isolation for psychotic episodes.
- Medical consult **is** required for Haloperidol administration following Midazolam (maximum dose) administration when sedating severely agitated patients.

SUPPORTING EVIDENCE

Reference (1):

- 'Although the complex mechanism of the therapeutic effect of Haloperidol is not clearly established, it is known that it produces a selective effect on the central nervous system by competitive blockade of postsynaptic dopamine (D2) receptors in the mesolimbic system'
- 'This action increases the turnover of brain dopamine to produce its tranquilising effects'
- 'Blockade of dopamine receptors can produce extrapyramidal motor reactions, decrease growth hormone release and increase prolactin release by the pituitary gland'
- MIMS Australia Annual June 2009

Reference (2):

- 'In Parkinson's Disease, the dopamine receptors degenerate and lead to an imbalance between dopamine and acetylcholine causing excessive muscarinic activity. This is characterised by a distinctive tremor of the extremities and great difficulty in the co-ordination of fine muscle movement'
- 'These patients are already lacking dopamine, so administering Haloperidol could be catastrophic'
- Galbraith et al 2001 'Fundamentals of pharmacology' 3rd ed

Reference (3):

- 'A potentially fatal syndrome known as Neuroleptic Malignant Syndrome (NMS) has been reported in association with antipsychotic drugs. It is associated with rapid blockade of dopamine receptors.'
- 'Clinical manifestations are hyperpyrexia, muscle rigidity, altered mental status (including catatonic signs) and autonomic instability (irregular pulse and/or blood pressure)'
- 'Management of NMS is immediate discontinuation of antipsychotic drugs, intensive symptomatic treatment and monitoring. Dantrolene and bromocriptine are in-hospital treatment therapies'
- MIMS Australia Annual June 2009

Reference (4):

- 'Tardive Dyskinesia is a syndrome consisting of potentially irreversible, involuntary dyskinetic movements that may develop in patients being treated with antipsychotic drugs. The risk of developing Tardive dyskinesia increases with long-term drug therapy. The risk appears greater in elderly patients on high dose therapy, especially females'
- 'There is no known effective treatment for Tardive Dyskinesia: anti-parkinsonian therapies do not alleviate symptoms of this syndrome'
- MIMS Australia Annual June 2009

Further Readings:

- Battaglia et al 1997 'Haloperidol, lorazepam or both for psychotic agitation? A multicentre, prospective, double blind emergency department study' *American Journal of Emergency Medicine* Vol 15 No 4
- Bieniek et al 1998 'A double blind study of lorazepam versus the combination of haloperidol and lorazepam in managing agitation' *Journal of Pharmacotherapy* Vol 18 No 1
- Clinical Practice Guideline A13.1 2002 'Psychiatric Emergency' QAS
- Clinical Practice Procedure 3.1.13 2008 'Sedation / Procedural Sedation' QAS
- Mental Health Intervention Project (MHIP) 2008 DES Portal
- Queensland Mental Health Act 2000