

Ningbo Voice Biochemic Co., Ltd.

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This information is intended for use by health professionals

1. Name of the medicinal product

Hyoscine 20 mg/ml Solution for Injection

2. Qualitative and quantitative composition

Each 1ml ampoule contains 20 mg of hyoscine butylbromide.

Excipient with known effect: Contains 3.54 mg/ml of sodium

For the full list of excipients, see section 6.1.

3. Pharmaceutical form

Solution for Injection

Clear, bright, colourless liquid, free from visible particulate contamination.

4. Clinical particulars

4.1 Therapeutic indications

- a. Nausea, vomiting, vertigo, labyrinthine disorders, motion sickness
- b. To prevent excessive bronchial salivary secretions during the use of general anaesthesia.

4.2 Posology and method of administration

Adults:

One ampoule (20 mg) intramuscularly or intravenously, repeated after half an hour if necessary. Intravenous injection should be performed 'slowly' (in rare cases a marked drop in blood pressure and even shock may be produced by hyosicine). When used in endoscopy this dose may need to be repeated more frequently.

Maximum daily dose of 100mg.

Special populations

Elderly: No specific information on the use of this product in the elderly is available. Clinical trials have included patients over 65 years and no adverse reactions specific to this age group have been reported.

Paediatric population

Not recommended for children.

Hyoscine Ampoules should not be taken on a continuous daily basis or for extended periods without investigating the cause of abdominal pain.

Diluent:

Hyoscine injection solution may be diluted with dextrose or with sodium chloride 0.9% injection solutions.

4.3 Contraindications

Hypersensitivity to the active substance or to any of the excipients listed in section 6.1.

Hyoscine should not be administered to patients with myasthenia gravis, megacolon, angle-closure glaucoma, tachycardia, acute porphyria, prostatic enlargement with urinary retention, gastrointestinal obstruction, mechanical stenosis in the region of the gastrointestinal tract, and the onset of labour or paralytic ileus.

Hyoscine should not be given by intramuscular injection to patients being treated with anticoagulant drugs since intramuscular haematoma may occur.

4.4 Special warnings and precautions for use

- Urinary Retention

- Caution is necessary in treating patients with cardiovascular disease (e.g. acute myocardial infarction, hypertension and conditions associated with tachycardia (including hyperthyroidism, cardiac insufficiency, and cardiac surgery)),
- Down's Syndrome, renal or hepatic impairment.
- Increased seizure frequency in epileptic patients.
- Use in caution with patients with diarrhoea. Hyoscine should be used with caution in patients with ulcerative colitis as use may lead to ileus or megacolon.
- Hyoscine may aggravate gastro-oesophageal reflux.
- In case severe unexplained abdominal pain persists or worsens or occurs together with symptoms like fever, nausea, vomiting, changes in bowel movements, abdominal tenderness, decreased blood pressure, fainting or blood in stool, appropriate diagnostic measures are needed to investigate the aetiology of the symptoms.
- Heat prostration can occur at high ambient temperatures, due to decreased sweating. Hyoscine should be administered with caution to patients with pyrexia.
- Elevation of intraocular pressure may be produced by the administration of anticholinergic agents such as hyoscine in patients with undiagnosed and therefore untreated angle-closure glaucoma.
- Urgent ophthalmological advice should be sought in case patients should develop a painful, red eye with loss of vision after the injection of hyoscine.
- After parenteral administration of hyoscine, cases of anaphylaxis including episodes of shock have been observed. As with all drugs causing such reactions, patients receiving hyoscine by injection should be kept under observation.
- Children: Use with caution in children as they may be more susceptible to adverse effects.

This medicinal product contains 3.54mg/ml of sodium per dose. To be taken into consideration by patients on a controlled sodium diet

4.5 Interaction with other medicinal products and other forms of interaction

- *Anticholinergics/antimuscarinics*: Many drugs have anticholinergic effects; concomitant use of two or more such drugs can increase side-effects such as dry mouth, urine retention and constipation; concomitant use can also lead to confusion in the elderly. Anticholinergic (antimuscarinic) side-effects may be intensified by concomitant use of hyoscine with drugs such as tricyclic and tetracyclic antidepressants, monoamine oxidase inhibitors (MAOIs), antihistamines, quinidine, amantadine,

antipsychotics (e.g. phenothiazines, butyrophenones, clozapine), disopyramide and other anticholinergics (e.g. tiotropium, ipratropium, atropine-like compounds) may be intensified by hyoscine.

- *Nitrates*: Reduced effect of sub-lingual nitrates (failure to dissolve under the tongue due to dry mouth).
- *Beta-adrenergic agents*: The tachycardic effects of beta-adrenergic agents maybe enhanced by hyoscine.
- *Metoclopramide and Domperidone – Dopamine antagonist*: Although hyoscine is not indicated for gastrointestinal treatment, concomitant treatment with dopamine antagonists such as metoclopramide or domperidone may result in diminution of the effects of both drugs on the gastrointestinal tract.
- *Dopaminergics*: Hyoscine may reduce absorption of levopdopa
- *Alcohol*: Patients should be advised to avoid alcohol prior to having any procedure which requires administration of hyoscine as an increased sedative effect has been reported when hyoscine is given with alcohol.
- *Parasympathomimetics*: Hyoscine antagonises the effects of parasympathomimetics

4.6 Fertility, pregnancy and lactation

Pregnancy:

There are limited data from the use of hyoscine in pregnant women. Animal studies are insufficient with respect to reproductive toxicity. Hyoscine crosses the placenta. Use of hyoscine during pregnancy may cause respiratory depression in the neonate. As a precautionary measure hyoscine is not recommended during pregnancy.

Breast-feeding:

There is insufficient information on the excretion of hyoscine and its metabolites in human milk. A risk to the breastfeeding child cannot be excluded. Use during breastfeeding is not recommended.

Fertility:

No studies on the effects of human fertility due to hyoscine have been conducted

4.7 Effects on ability to drive and use machines

Hyoscine may cause drowsiness, dizziness or blurred vision. If affected, patients must not drive or operate machinery.

4.8 Undesirable effects

Many of the listed undesirable effects can be assigned to the anticholinergic properties of hyoscine.

- Immune system disorders: anaphylactic shock including cases with fatal outcome, anaphylactic or anaphylactoid reactions, dyspnoea, skin reactions (e.g. urticaria, rash, erythema, pruritus) and other hypersensitivity
- Psychiatric disorders: mental confusion or excitement, psychotic disorder, delirium, hallucinations
- Nervous system disorders: drowsiness, dizziness, headache, loss consciousness, neuroleptic malignant syndrome
- Eye disorders: blurred vision, dilation of the pupils, with loss of accommodation, photophobia, angle-closure glaucoma
- Cardiac disorders: transient bradycardia, tachycardia, palpitations, arrhythmias
- Vascular disorders: blood pressure decreased, flushing
- Gastrointestinal disorders: dry mouth, constipation, nausea, vomiting, difficulty in swallowing
- Skin and subcutaneous tissue disorders: dyshidrosis, skin dryness, and rashes
- Renal and urinary disorders: difficulty with micturition
- General disorders and administration site conditions: idiosyncratic reactions, injection site pain, particularly after intramuscular use, occurs, thirst

Reporting of suspected adverse reactions

Reporting suspected adverse reactions after authorisation of the medicinal product is important. It allows continued monitoring of the benefit/risk balance of the medicinal product. Healthcare professionals are asked to report any suspected adverse reactions via the Yellow Card Scheme www.mhra.gov.uk/yellowcard or search for MHRA Yellow Card in the Google Play or Apple App Store.

4.9 Overdose

Symptoms:

In the early stages the symptoms would be excitement, delirium, dilated pupils, rapid pulse, hot flushes, dry skin, dry mouth and thirst, (see also section 4.8).

Symptomatic and supportive treatment should be instituted (in the case of oral ingestion, gastric lavage should be included). Many of the symptoms are related to the anticholinergic nature of hyoscine: urinary retention, reddening of the skin, tachycardia, inhibition of gastrointestinal motility and transient visual disturbances may occur. Cheynes-Stokes respiration has been reported. Other symptoms may include: hyperthermia, hyperpyrexia, hypertension, nausea and vomiting. Toxic doses may also cause CNS stimulation marked by restlessness, confusion, ataxia, incoordination, paranoid and psychotic reactions, hallucinations, and occasionally seizures. In severe over-dosage, central stimulation may give way to CNS depression, coma, circulatory/respiratory failure and death. Treatment:

Physostigmine by slow intravenous injection in a dose of 1 to 4mg has been used to reverse the anticholinergic effects, however, such use is hazardous and is not generally recommended. Diazepam may be given to control excitement. For patients with glaucoma, pilocarpine should be given locally. Cardiovascular complications should be treated according to usual therapeutic principles. In cases of respiratory paralysis, intubation and artificial respiration should be undertaken. Catheterisation may be required for urinary retention.

5. Pharmacological properties

5.1 Pharmacodynamic properties

Hyoscine is an anticholinergic drug which inhibits the muscarinic actions of acetylcholine at post-ganglionic parasympathetic neuroeffector sites including smooth muscle, secretory glands and CNS sites. Small doses effectively inhibit salivary and bronchial secretions and sweating and provide a degree of amnesia. Hyoscine is a more powerful suppressor of salivation than atropine and usually slows rather than increases heart rate.

5.2 Pharmacokinetic properties

Hyoscine is rapidly absorbed following IV or IM injection and is reversibly bound to plasma protein. Hyoscine is reported to cross the placenta and blood brain barrier. Hyoscine is almost completely metabolised by the liver and excreted in the urine. In one study in man, 3.4% of a single dose, administered by subcutaneous injection was excreted unchanged in urine within 72 hours.

5.3 Preclinical safety data

No additional pre-clinical data of relevance to the prescriber is available.

6. Pharmaceutical particulars

6.1 List of excipients

Dilute Hydrobromic Acid ; Sodium Chloride ; Water for Injection.

6.2 Incompatibilities

None stated.

6.3 Shelf life

36 months

6.4 Special precautions for storage

Protect from light.

6.5 Nature and contents of container

Clear colourless 1ml ampoules of neutral glass. Packed in box of 10ampoules .

6.6 Special precautions for disposal and other handling

Any unused medicinal product or waste material should be disposed of in accordance with local requirements.

7. Marketing authorisation holder

Ningbo Voice Biochemic Co., Ltd.

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