SUMMARY OF PRODUCT CHARACTERISTICS

1. Name of drug product:

1.1 Name of the medicinal product

Hyoscine Butylbromide Injection B.P.
XSPAS

1.2 Strength

20 mg / ml

1.3 Pharmaceutical dosage form:

Solution for Injection.

2. Qualitative and quantitative composition

Sr. No.	Particulars	Grade	Qty. / ml	Function
1.	Hyoscine Butylbromide	B.P.	20.0 mg	Active

For excipients, please refer 6.1

3. Pharmaceutical form

A clear colourless solution.

4. Clinical Particulars

4.1 Therapeutic indications

Xspas is indicated in acute spasm, as in renal or biliary colic, in radiology for differential diagnosis of obstruction and to reduce spasm and pain in pyelography, and in other diagnostic procedures where spasm may be a problem, e.g. gastro-duodenal endoscopy.

4.2 Posology and method of administration

Route of administration: Subcutaneous/ Intravenous / Intramuscular

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 Hyoscine Butylbromide Injection). When used in endoscopy this dose may need to be repeated more frequently. Maximum daily dose of 100 mg.

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

Diluent:

Hyoscine Butylbromide solution may be diluted with dextrose or with sodium chloride 0.9% w/v injection solutions.

4.3 Contraindications

It should not be used in patients who have demonstrated prior hypersensitivity to hyoscine butylbromide or any other component of the product.
Patients with prostatic enlargement, paralytic ileus or pyloric stenosis, close-angle glaucoma or with a narrow angle between the iris and the cornea. Due to the risk of provoking hyperpyrexia it should not be given to patients, especially children where the ambient temperature is high. It should not be given to patients with myasthenia gravis unless it is given to reduce adverse muscarinic effects of an anticholinesterase agent. Safety during pregnancy and lactation has not been established.
It 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

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 etiology of the symptoms. Hyoscine Butylbromide Injection should be used with caution in conditions characterised by tachycardia such as thyrotoxicosis, cardiac insufficiency or failure and in cardiac surgery where it may further accelerate the heart rate. Because of the possibility that anticholinergics may reduce sweating, Hyoscine Butylbromide Injection should be administered with caution to patients with pyrexia. Elevation of intraocular pressure may be produced by the administration of anticholinergic agents such as Xspas in patients with undiagnosed and therefore untreated narrow angle glaucoma. Therefore, patients should seek urgent ophthalmological advice in case they should develop a painful, red eye with loss of vision after the injection of Hyoscine Butylbromide Injection. After parenteral administration of Hyoscine Butylbromide Injection, cases of anaphylaxis including episodes of shock have been observed. As with all drugs causing such reactions, patients receiving Hyoscine Butylbromide by injection should be kept under observation..

4.5 Interaction with other medicinal products and other forms of interaction

The anticholinergic effect of drugs such as tri- and tetracyclic antidepressants, antihistamines, quinidine, amantadine, antipsychotics (e.g. phenothiazines, butyrophenones), disopyramide and other anticholinergics (e.g. tiotropium, ipratropium, atropine-like compounds) may be intensified by Xspas.
The tachycardic effects of beta-adrenergic agents may be enhanced by Xspas. Concomitant treatment with dopamine antagonists such as metoclopramide may result in diminution of the effects of both drugs on the gastrointestinal tract.

4.6 Pregnancy and lactation

Pregnancy:

There are limited data from the use of hyoscine butylbromide in pregnant women. Animal studies are insufficient with respect to reproductive toxicity. As a precautionary measure Xspas is not recommended during pregnancy.

Lactation:

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

Fertility:

No studies on the effects on human fertility have been conducted.

4.7 Effects on ability to drive and operate machines

Because of visual accommodation disturbances patients should not drive or operate machinery after parenteral administration of XSPAS until vision has normalised.

4.8 Undesirable effects

Many of the listed undesirable effects can be assigned to the anticholinergic properties of Hyoscine Butylbromide. Immune system disorders, Anaphylactic shock including cases with fatal outcome, anaphylactic reactions, dyspnoea, skin reactions and other hypersensitivity, Eye disorders, Accommodation disorders, Cardiac disorders, Tachycardia,

Vascular disorders, Blood pressure decreased, dizziness, flushing, Gastrointestinal disorders, Dry mouth, constipation, Skin and subcutaneous tissue disorders, Dyshidrosis, Renal and urinary disorders, Urinary retention.

Injection site pain, particularly after intramuscular use, occurs. Hyoscine butylbromide, the active ingredient of Xspas, due to its chemical structure as a quaternary ammonium derivate, is not expected to enter the central nervous system. Hyoscine butylbromide does not readily pass the blood-brain barrier. However, it cannot totally be ruled out that under certain circumstances psychiatric disorders (e.g. confusion) may also occur after administration of Hyoscine Butylbromide.

4.9 Overdosage

Symptoms:

Serious signs of poisoning following acute overdosage have not been observed in man. In the case of overdosage, anticholinergic symptoms such as urinary retention, dry mouth, reddening of the skin, tachycardia, inhibition of gastrointestinal motility and transient visual disturbances may occur, and Cheynes-Stokes respiration has been reported.

Therapy:

Symptoms of Xspas overdosage respond to parasympathomimetics. For patients with glaucoma, pilocarpine should be given locally. Cardiovascular complications should be treated according to usual therapeutic principles.

In case of respiratory paralysis, intubation and artificial respiration. Catheterisation may be required for urinary retention. In addition, appropriate supportive measures should be used as required.

5. Pharmacological properties

5.1 Pharmacodynamic properties

Hyoscine Butylbromide has a special site of action at the parasympathetic genglia in the walls of the viscera. Because of this it exerts a specific antispasmodic action on the smooth muscle of the gastro-intestinal, biliary and urinary tracts.

Because of this selective action the side effects characteristic of atropine-like substances rarely occur. Hence, no side effects on the central nervous system or salivary glands are observed when Hyoscine Butylbromide is administered in therapeutic doses.

5.2 Pharmacokinetic properties

Absorption and distribution

After intravenous administration hyoscine butylbromide is rapidly distributed (t½α = 4 min, t½β = 29 min) into the tissues. The volume of distribution (Vss) is 128 L (corresponding to approx. 1.7 L/kg). Because of its high affinity for muscarinic receptors and nicotinic receptors, hyoscine butylbromide is mainly distributed on muscle cells of the abdominal and pelvic area as well as in the intramural ganglia of the abdominal organs. Plasma protein binding (albumin) of hyoscine butylbromide is approximately 4.4%. Animal studies demonstrate that hyoscine butylbromide does not pass the blood-brain barrier, but no clinical data to this effect is available. Hyoscine butylbromide (1 mM) has been observed to interact with the choline transport (1.4 nM) in epithelial cells of human placenta in vitro.

Metabolism and elimination

The main metabolic pathway is the hydrolytic cleavage of the ester bond. The half-life of the terminal elimination phase (t½γ) is approximately 5 hours. The total clearance is 1.2 L/min. Clinical studies with radiolabeled hyoscine butylbromide show that after intravenous injection 42 to 61% of the radioactive dose is excreted renally and 28.3 to 37% faecally.

The portion of unchanged active ingredient excreted in the urine is approximately 50%. The metabolites excreted via the renal route bind poorly to the muscarinic receptors and are therefore not considered to contribute to the effect of the hyoscine butylbromide.

Paediatric population

No particular pharmacokinetic studies concerning hyoscine butylbromide have been performed in children.

5.3 Pre-clinical Safety Data

No further relevant information other than that mentioned above.

6. Pharmaceutical particulars

6.1 List of excipients

1. Sodium Chloride B.P.
2. Water for Injections B.P.

6.2 Incompatibilities

No further relevant information other than that mentioned above.

6.3 Shelf life

36 Months

6.4 Special precautions for storage

Store below 25°C, protected from light. Do not Freeze.

6.5 Nature and contents of container

1 ml is filled in an amber ampoule. Such 5 ampoules are packed in a blister. 2 such blisters packed in Inner carton along with packed insert.

6.6 Special Precautions for Handling and Disposal

For single use only. Any unused solution should be discarded.

7. **Marketing authorization holder:**
   M/s. NEON LABORATORIES LIMITED
   140, Damji Shamji Industrial Complex,
   28, Mahal Industrial Estate, M. Caves Road,
   Andheri (E),
   Mumbai – 400 093.
   INDIA

8. **Marketing Authorization Number (s):**
   07270/09074/NMR/2021

9. **Date of first authorization/ Renewal of the authorisation :**
   12-4-2022

10. **Date of revision of the text:**
    July,2023