ATROVIL 1%

Atropini sulfas

**Dosage form:** Injection solution, used in veterinary.

**Composition:** 1 ml contains: 10 mg atropine sulphate.

**Description:** colorless or whitish-yellowish clear solution.

**Presentation:** 20ml, 50ml and 100ml yellow glass vials and carton boxes.

**Therapeutic Group:** Agent that works on peripheral nervous system, anticholinergic drug;

**Target species:** Horse, cow, sheep, goat, dog, cat;

**Pharmacological characteristics**

Atrovil 1% solution for injection is a cholinergic drug. Its active substance atropine sulphate which is received from belladon alkaloids acts by inhibiting binding of acetyl choline to muscarinic receptors in effector cells, which eliminates the muscarinic effect of acetyl choline. It has stimulatory effect on central nervous system if administered parenterally. It has anti-spasmodic effect on smooth muscles. Due to this effect it blocks the peristalsis of gastrointestinal smooth muscles, which causes constipation. It decreases salivation and bronchial secretions. It accelerates heart beats by depressing the vagus. It causes mydriasis by relaxing the iris sphincter muscle.

Atroin sulphate is easily absorbed from gastrointestinal tract. If it is administered from parenteral route, the active substance is distributed in the whole organism by means of systemic circulation. It passes the blood-brain barrier and also placental barrier. It is partially metabolized to tropine and tropic acid in the liver. 60% of administered dose is excreted in the urine in unchanged form and the remaining portion is excreted in hydrolyzed and conjugated form. Effects of atropine sulphate on organs will vary. It has short-term impact on cardio-vascular system. But impact of peripheral and central nervous systems may last for 8 hours and longer.
Indications

Atrovil 1% solution for injection can be used as a spasmolytic agent in cases of pain, for decreasing of salivation and bronchial secretion in case of surgeries that are conducted under anesthesia and as a pre-anesthetic drug for preventing negative impact of vagal tonus on heart (together with analgesic drugs before anesthesia in traumatized cats and dogs). Moreover, it can be used as antidote in case of intoxication with phosphor organics of insecticides or carbamate group, also in case of poisoning with morphine and eserin, pylocarpin, choline and chloroform.

Usage and dosage

Unless recommended otherwise by doctors:

Injection solution is administered subcutaneously is case of parasimpatolysis. It is administered twice on the first day and once a week in remaining days.

<table>
<thead>
<tr>
<th>Animal species</th>
<th>Practical dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horse, cow</td>
<td>1.5-6 ml</td>
</tr>
<tr>
<td>Sheep, goat</td>
<td>0.5-3 ml</td>
</tr>
<tr>
<td>Dog</td>
<td>0.03-0.5 ml</td>
</tr>
<tr>
<td>Cat</td>
<td>0.01 – 0.03 ml</td>
</tr>
</tbody>
</table>

It is used as antidote. It is administered slowly via intravenous route in case of poisoning with insecticides (phosphor-organic or carbamate group). Subcutaneous administration is used in case of other toxicities.

<table>
<thead>
<tr>
<th>Animal species</th>
<th>Practical dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cow</td>
<td>5-10 ml /100kg live bodyweight</td>
</tr>
<tr>
<td>Horse</td>
<td>1-2 ml /100 kg live bodyweight</td>
</tr>
<tr>
<td>Dog</td>
<td>0.1-0.2 ml /10 kg live bodyweight</td>
</tr>
</tbody>
</table>
Dose shall be repeated only in case of monitoring of atropinization symptoms and depending on absence of toxicity syndromes. Atropine is injected via intravenous route 0.01mg/kg live bodyweight (0.5ml/100kg live bodyweight) in case of using Xylasine anesthesia in horses.

**Special warnings:**

When using the medicine for parasympathomimetic purposes, it is necessary to calculate dose for each animal and the drug is administered subcutaneously. The drug is administered intravenously and slowly in case of toxicities caused by organic phosphor insecticides. Dose can be repeated only by monitoring symptoms of atropinization and depending on absence of toxicity syndromes. It shall not be used as pre-anesthetic because it causes loss of appetite and stops ruminal activities in adult animals.

**Side effects:**

Blurred vision, dry mouth and skin, numbing, tachycardia, constipation and problems in urination;

**Drug interaction:**

Atropine may have influence on absorption of other drugs because it reduces intestinal motility. When it is used together with parasympathomimetic agents (choline esters, alkaloids with cholinergic effect, acetyl choline esterase inhibitors etc), they antagonize each other. It is incompatible with acepromazine, chlorpromazine, heparin and methohexital sodium.

**Warning for non-target species**

It has contraindications in poultry.

**Overdose**

Tachycardia, anxiety and coordination disorder are observed. Parasympathomimetic drugs such as arecholin, pylocarpin and neostigmin shall be used in case of toxicity caused by atropine overdose. Animal shall be kept warm. Vomiting shall be induced if the medicine is administered per-orally.
**Withdrawal time:**

Cattle and sheep shall not be slaughtered during treatment period and within 20 days after last administration of medicine. Moreover, milk obtained from milking cattle and sheep throughout treatment and within 4 days (8 milking) shall not be used for human consumption.

**Contraindications:**

Contraindications are observed in cases of tachycardia, corneal ulcer, glaucoma and pyloric obstruction.

It is unknown whether the drug causes anomalies and other problems in pregnant animals. Atropine increases heart beat of fetus. No scientific studies are conducted on this issue. Therefore, it is recommended to use in pregnant animals when possible benefits overweight the risks. Otherwise it isn’t recommended to use it during pregnancy period.

**General warnings**

Please, refer to vet before use or in case of an unexpected effect.

Keep out of reach of children, away from food materials.

Do not purchase expired drug or products with damaged package.

**Measures to be taken during administration of medicine**

Atropine is a toxic alkaloid that has strong pharmacological effect. Therefore, it shall be used very carefully. If it is accidentally administered from a wrong route, refer to doctor immediately.

**Storage conditions:**

It is kept in a place protected from light at a room temperature (15-25°C).

**Shelf-life:** 2 years.

**Manufacturer country:** Vilsan, Turkey.