Chemically, methylergonovine maleate is designated as ergoline-8-carboxamide, maleic acid 0.10 mg; sodium chloride 7.0 mg; water for injection. Inactive Ingredients: 9,10-didehydro-19,24(n)-N-alkyl-3,4-benzoxazole-1,2-dione (1:1) (salt).

Its structural formula is:

\[
\text{C}_{20}\text{H}_{25}\text{N}_3\text{O}_2
\]

Methylergonovine Maleate Injection, USP

**DESCRIPTION**

Methylergonovine maleate is a semi-synthetic ergot alkaloid used for the prevention and control of postpartum hemorrhage. Methylergonovine maleate injection is a clear, colorless, sterile solution available in 20 mL multidose vials. The unique bitter taste and packaging of methylergonovine maleate injection should be strictly avoided.

**INDICATIONS AND USAGE**

Methylergonovine maleate is contraindicated during pregnancy because of its potential for fetal harm or to affect reproductive capacity. Use of methylergonovine maleate injection is indicated for the prevention and control of postpartum hemorrhage, shortening the third stage of labor.

**WARNINGS**

This drug should not be administered intravenously because of the risk of precipitating severe hypertension and cardiovascular accidents. If intravenous administration is considered essential as a last means of treatment, methylergonovine maleate should be given slowly over a period of no less than 60 seconds with careful monitoring of blood pressure. Intra-arterial or periarterial injection of methylergonovine maleate should be given slowly over a period of no less than 2 to 3 minutes or less. The bioavailability after oral administration was reported to be about 85% with no accumulation after repeated doses. During delivery, intravenous injection has been used to promote uterine contractility when oxytocin and other agents have failed to establish adequate bleeding control. Methylergonovine maleate injection should be stored separately from medications intended for neonatal use due to the potential for accidental neonatal exposure.

**Carcinogenesis, Mutagenesis, Impairment of Fertility**

Animal reproductive studies have not been conducted with methylergonovine maleate. There are no reports of such interactions with methylergonovine maleate, alone or in combination with other ergot alkaloid drugs (e.g., dihydroergotamine and ergonovine). There are no reports of serious adverse events in connection with the coadministration of certain ergot alkaloid drugs (e.g., dihydroergotamine and ergonovine) and papaverine, resulting in vasospasm to central ischemia and/or ischemia of the extremities. Although there have been no reports of such interactions with methylergonovine, papaverine induced severe, painful ischemia in some of the more patient cases of papaverine include maculopapular rashes (e.g., urticaria, angioedema, erythema multiforme), urticaria, angioedema, erythema multiforme, urticaria, angioedema, erythema multiforme, and Steven-Johnson syndrome. Methylergonovine maleate should be administered cautiously because it causes fetal harm or can affect reproductive capacity. Use of methylergonovine maleate injection should be strictly avoided.

**CYP3A4 Inhibitors**

Drug interactions with methylergonovine maleate may reduce the efficacy of certain CYP3A4 substrates or increase the bleeding risk with certain CYP3A4 substrates. Methylergonovine maleate injection should be stored separately from medications intended for neonatal use due to the potential for accidental neonatal exposure.

**CONTRAINDICATIONS**

Hypersensitivity, severe hypertension, pregnancy, and hyperammonemia.

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The lethal dose in humans has not been established. The oral LD₅₀ (in mg/kg) in rats is 187, in mice 93, and in rabbits 4.5. Several cases of accidental ingestion of methylergonovine maleate in newborn infants have been reported, and in such cases 0.2 mg represents an overdose of great magnitude. However, recovery occurred in all but one case following a period of respiratory depression, hypothermia, hypoxemia, and asystole. Also, several children 1 to 3 years of age have accidentally ingested up to 10 tablets (2 mg) with no apparent ill effects. A postpartum patient took 4 tablets at one time and recovered without apparent ill effects. A 5-year-old girl ingested 3 tablets and recovered without apparent adverse effects.

Treatment of acute overdose is symptomatic and includes the usual procedures of:

1. removal of offending drug by inducing emesis, gastric lavage, catharsis, and supportive therapy.
2. maintenance of adequate pulmonary ventilation, especially in convulsions or coma.
3. correction of hypotension with pressor agents as needed.
4. control of convulsions with standard anticonvulsant agents.
5. control of peripheral vasospasm with warmth to the extremities if needed.

DOSEAGE AND ADMINISTRATION

Parenteral drug products should be inspected visually for particulate matter and discoloration prior to administration.

Intravenously

1 ml, 0.2 mg, after delivery of the anterior shoulder, after delivery of the placenta, or during the puerperium. May be repeated as required, at intervals of 2 to 4 hours.

Intramuscular

1 ml, 0.2 mg, administered intramuscularly once or twice at intervals of no less than 5 minutes (See WARNINGS).

Orally

One tablet, 0.2 mg, 3 or 4 times daily in the postpartum for a maximum of 1 week.