

1.4.3 PIL

RINGER LACTATE INTRAVENOUS INFUSION

Product name: Ringer Lactate Intravenous Infusion

Main ingredients and chemical name:

Each 100ml contain:

Sodium Lactate 0.320g

Sodium chloride 0.600g

Potassium chloride 0.040g

Calcium chloride (CaCl₂·dihydrate) 0.027g

【Character】 This product is a colorless clear liquid.

【Pharmacology and toxicity】 In the natural case our blood contain a little lactic acid, it is mainly produced by dextrose or heparin through zymohydrolysis happening in muscle, skin, brain and cell. After the production of lactate, lactic acid will be translated into heparin or pyruvic acid, or come into tricarbonylic acid circle, be decomposed to water and carbon dioxide. So the last metabolize production is sodium bicarbonate, it can correct metabolizable acid toxicosis. When the product is indicated for hyperpotassaemia following acidosis, sodium lactate can correct acid toxicosis, and make the potassium come into the cell from blood or extracellular fluid. The main viscera that can decompose lactic acid is liver and kidney. When the metabolize of lactic acid is abnormal or out of gear, the curative effect is not very good.

【Pharmacokinetics】

pH of sodium lactate is 6.5-7.5, it can be absorbed quickly after taking orally, and can be oxidated by liver in 1-2 hour, with the metabolism products sodium bicarbonate. But it is usually administered by phlebotomy. Using sodium lactate instead of sodium acetate as the buffer for peritoneum dialysis can reduce the excitation for peritoneum, it can also reduce the influence for depression of cardiac muscle and the resistance of the around blood vessel.

【Indications】

It is indicated to adjust the equilibrium of humour electrolyte acid and alkali, Used for metabolic acid toxicosis or dehydration caused by metabolic acid toxicosis.

【Dosage and administration】

By phlebotomy. The general dose for the adult is 500-1000ml/time, but the dose can be reduced or increased according to the avoirdupois and the age. The speed of administration is 300-500ml/hour.

【Side-effect】

(1) for the patients with hepo-calcium (such as uraemia), after correcting acid toxicosis the following cases may happen: limb tingling, ache, twitch, dyspnea and so on. The cause is the reduction of concentration of blood serum calcium ion. (2) cardioacceleration, chest distress, breath lessness, pulmonary edema, heart failure and etc. (3) blood pressure arise (4) body weight rise, edema (5) over dose may lead to alkali poisoning (6) the potassium's concentration decline, sometimes hepotassaemia may happen.

【Attention】

Use cautiously if any of the following cases happen:

(1) if the patients with the diabetic is taking caplendus biguanides (especially Phenformin), it may inhibit the absorbance of lactic acid of liver, and lactic acid intoxication may happen. (2) the patient with edema companied with Sodium retention trend. (3) blood pressure may arise for the patients with hypertension. (4) cardiac insufficiency (5) the degradation speed of lactate step down for the patients with hepatic inadequacy, it may delay the speed of correcting acidosis. (6) hypoxia and shock, not enough tissue blood-supply, the metabolism of lactate is slow, it may be influential for the speed to correct acidosis. (7) with excessive drinking, Salicylism toxicosis, I type glycogen deposition, lactic acidosis may happen. The product is not appropriate to correct the balance of acid and alkali. (8) with diabetes mellitus ketosis, Acetyl acetic acid, β-hydroxybutyric acid and lactic acid all arise, and may accompany with circulation not good and organ blood-supply not enough, the degradation speed of lactic acid reduce. (9) the patients with renal inadequacy may accompany with water and sodium retention, it may raise the load of heart and blood vessel.

The product is forbidden to use for the following cases: (1) heart failure and acute pulmonary edema (2) cerebral edema (3) lactic acidosis is obvious (4) severe hepatic inadequacy (5) serious renal failure with oliguria or anuria

The following items should be examined before use: (1) blood pH or carbon dioxide combining power (2) the concentration of sodium, potassium, and calcium in the serum (3) check the renal function (4) blood pressure (5) cardiorespiratory function state such as edema, breath lessness, cyanosis, bellows rales, jugular engorge, liver-jugular regurgitation and so on. If necessarily, examine the venous pressure or central venous pressure. (6) when the product is administered for the patients with hepatic inadequacy, make careful inspection momentarily.

【Pregnancy and Lactation】

The administration may intensify edema or raise the blood pressure for the gravida have pregnancy toxinosi

【Pediatric Use】

Calculate the dose according to the age and body weight



Sodium Lactate Ringer's Injection 500ml PP
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【Geratology】

For the old patients usually have insidious cardiac insufficiency or renal inadequacy, so it is must be used carefully.

【Interaction】

When administered with other medicine (such as macrolide antibiotic, alkaloid , sulfanilamide group), pay attention to the incompatibility may happen because of pH value and ionic strength change. Because the product contain Ca⁺, precipitation may happen when mixed with the blood contain natrium citricum.

【Overdose】

Overdose may lead to edema or lose balance of ion in body.

【Specification】 500ml

【Storage Condition】 Store below 25 °C. Protect from sunlight. Keep out of reach of children

【Package】 500mL PP bottle

【Expiry date】 3 years

【Manufacturer】

Name: Shijiazhuang No.4 Pharmaceutical Co., Ltd.