METHODS OF PARENTERAL FEEDING IN INFANTS POSTOPERATIVELY

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Abstract. This article talks about the methods and methods of parenteral nutrition in babies after surgery.

Key words: babies, operation, methods of parenteral nutrition, methodical methods, medicine.

Абстракт. В данной статье рассказывается о методах и способах парентерального питания у детей раннего возраста после операции.

Ключевые слова: дети раннего возраста, операция, методы парентерального питания, методические приемы, медицина.

Parenteral nutrition of preterm infants provides adequate water, energy sources, amino acids, electrolytes and vitamins for their growth, before or when enteral nutrition of infants is not possible for a long time. It is lifesaving with refractory diarrhea, extensive bowel resection and extremely low body weight. Infusion solutions are introduced by puncture or surgery into a catheter placed in a central vein or through a catheter in a peripheral vein. A catheter can also be inserted into the umbilical vein in a short time.

Complications of total parenteral nutrition of premature infants are associated with venous catheterization and difficulties in the metabolism of the components of the infusion solution.

Septicemia is the most dangerous when using central veins. This risk can be minimized by careful catheter care and aseptic preparation of solutions.

The most common cause of septicemia is staphylococcus aureus. Antibacterial therapy is indicated. If it is ineffective (re-separation of the pathogen from the blood during treatment), the catheter is removed. In addition, venous thrombosis, dislodgement of the catheter and accidental injection of the infusion solution under the skin can occur. Septicemia is rare when using peripheral veins, but superficial infection, phlebitis and skin necrosis are possible.

Hyperglycemia due to the introduction of concentrated glucose solutions is among the metabolic complications of feeding premature infants. This leads to osmotic diuresis, dehydration, azotemia and is accompanied by the risk of nephrocalcinosis. Hypoglycemia occurs when the infusion is accidentally stopped.

The introduction of fat emulsions can be complicated by hyperlipidemia and possibly hypoxia, amino acid mixtures - hyperammonemia. Metabolic bone damage, liver damage or cholestatic jaundice develop with prolonged parenteral nutrition.

The frequency and severity of complications require careful monitoring of physiological and biochemical parameters with parenteral nutrition of preterm infants. Enteral nutrition of premature babies requires an individual approach. It is important to avoid fasting and aspiration due to regurgitation or during meals. No

feeding method is safe from these complications if it is performed by inadequately trained personnel.

Nipple feeding is not indicated for respiratory distress, hypoxia, shock, excessive secretion of mucus in the respiratory tract, vomiting, deep immaturity, CNS depression, severe diseases (for example, sepsis). In such cases, tube feeding and parenteral nutrition of premature infants are necessary to meet the need for nutrients, water and electrolytes.

Feeding through the chest is possible only with a strong suction, swallowing movements closing the larynx with the epiglottis and coordination of the nasal cavity with the palatine membrane and normal peristalsis of the esophagus.

Initially, it is recommended to feed these children with breast milk through the nipple. The latter should be soft with a small diameter and a large hole. Slow suckers for feeding premature babies with relatively low birth weight, soft plastic probes with an inner diameter of 0.05 cm, a round atraumatic tip, with two holes. For preterm infants who are not difficult to deliver, tube feeding is used continuously at intervals or at a constant rate.

A nasojejunal tube can sometimes be successfully used in premature infants who do not tolerate tube feeding. However, when eating through it, there is a risk of intestinal perforation. When the child is strong enough, they will switch to feeding through the breast, and then cling to the breast.

Feeding through a gastrostomy tube is used only in newborns who have undergone surgery for diseases and defects of the gastrointestinal tract and in patients with central nervous system injuries with persistent swallowing disorders.

When to start enteral feeding for premature babies? There is no consensus on this issue for premature patients.

The so-called trophic feeding is the introduction of a very small amount of milk or mixture to stimulate the maturation of the digestive tract. According to numerous reports, it has beneficial effects: accelerates growth, improves intestinal motility, reduces the need for parenteral nutrition, reduces the frequency of episodes of infection and shortens the length of hospitalization.

After the child's condition is stabilized, a small amount of enteral nutrition is started in addition to parenteral nutrition. Gradually, the volume of enteral feeding of premature infants increases and parenteral takes its place. This approach reduces the incidence of necrotizing enterocolitis. However, be very careful when increasing the amount of enteral nutrition.

Careful introduction of enteral nutrition reduces the risk of hypoglycemia, dehydration and hyperbilirubinemia without increasing the risk of aspiration, therefore, at present, respiratory disorders and a number of other conditions are not considered indications for complete replacement of enteral nutrition with parenteral.

Natural breastfeeding is preferred for all newborns, including premature babies. Milk is not only well digested and absorbed, but also protects against a number of infections, as it normalizes the intestinal microflora and contains

specific and non-specific protective factors. Natural feeding of preterm infants reduces the risk of necrotizing enterocolitis and sudden infant death syndrome in preterm infants. Perhaps this also has a long-term beneficial effect - it improves psychomotor development and prevents obesity in adulthood and adolescence.

Formulas contain sufficient amounts of vitamins for proper growth, but it often takes several weeks for a child to consume this amount. Therefore, premature babies need a vitamin supplement. Usually, they are based on the daily needs of a full-term baby, because the needs of premature babies are not clearly known. Premature newborns have an increased need for certain vitamins.

Premature babies have physiological anemia in the postpartum period due to inhibition of erythropoiesis, a sharp increase in blood volume due to insufficient accumulation of iron in the prenatal period and faster growth than in full-term, therefore hemoglobin, the decrease in the level manifests itself earlier and is significant.

With proper nutrition of babies, stool occurs 1-6 times a day, its consistency is semi-liquid. Not deviations from certain accepted stool frequencies, but the appearance of watery stools or the clear or hidden appearance of blood, as well as a large amount of regurgitation or vomiting, should be of concern. Usually, a premature baby shows anxiety shortly before feeding and calms down and falls asleep after feeding.

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