PARENTERAL NUTRITION IN A NEONATOLOGY INTENSIVE CARE UNIT: DURATION AND COMPLICATIONS

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BACKGROUND AND IMPORTANCE

Parenteral nutrition (PN) can be used in any malnourished child or on risk of malnutrition. In preterm newborns, it should be started in the first hours of life, although this artificial technique is not exempt from a series of complications related to its use.

AIM AND OBJECTIVES

To analyze the use, prescription time and incidence of complications of PN in a Neonatology Intensive Care Unit (ICU).

MATERIALS AND METHODS

During the year 2018 a retrospective and descriptive study on the use of PN in the Neonatology ICU in our Hospital was performed.

Electronic medical record and NP software
Demographic data
Type of nutrition
Birth weight
Number of prescription days
Prescription/suspension’s motivation
Metabolic complications (MC) (out of range glucose and triglyceride levels)
Total number of PNs elaborated
Electrolytic complications (EC) (out of range ions)

RESULTS

56%
44%
61 patients

Total number of NP prescribed: 497 (100% central)

1.5% 1.5%
97%

Prescription’s motivation

Prematurity
Sepsis
Esophageal atresia

79%
8%
6.5%
1.5%

Cessation’s causes
Transition to venoclysis
Oral via
Enteral nutrition via nasogastric tube
Exitus
Loss of central venous line

65.5% only developed EC
36% only developed MC

Mean duration in preterm infants by weigh
Weight n Mean duration (days)
≤ 1.5kg 31 9.5
> 1.5 kg 28 8

Most frequent: hipernatremia (31%)
Most frequent: hyperglycaemia (24.5%), being also the earliest

Out-of-range analytical determinations were observed in 116 cases

Average of altered parameters in premature according to weigh
≤ 1.5kg 2
> 1.5 kg 0.9

Average of alterations according to duration
≤ 5 days 0.5
5-10 days 1.5
> 10 days 3

CONCLUSION AND RELEVANCE

✓ The main reason for the prescription of PN in neonates was prematurity; and for the cessation, the switch to venoclysis.
✓ Usage time was slightly longer in those with lower birth weight, as well as the developed alterations, the most frequent being hypernatremia, and the earliest hyperglycemia.