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Causes of impaired heat balance in children in the postnatal period at home

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Background

For the first 28 days of life, children are characterized by the adaptation of the newborn to postnatal life.

Aim

Analysis of the causes of infractions in heat regulation in newborns in the postnatal period.

Materials

30 full-term newborns

- discharged from the maternity hospital on the 2nd day of life after birth
- examined daily at home
- exclusively breastfed and healthy.

Assessment of the early clinical signs of hypothermia: cold feet to the touch, poor sucking, decreased activity, weak cry, and “marbling” of the skin.

- The body temperature - 3 times a day.

Results

Table 1. "Early clinical signs of hypothermia"

cold feet to the touch	poor sucking	decreased activity	weak cry	“marbling” of the skin	body temperature in the armpit
25 newborns		25 newborns		25 newborns	36.5^{0}C-36.7^{0}C
83,3%		83,3%		83,3%	

Table 2. "Mild hypothermia"

5 (16,6%)	5 (16,6%)	5 (16,6%)			36.4^{0}C-36.0^{0}C

Table 3. "Hyperthermia (37.50C -38.00C)"

moderate dryness of the mucous lips	anxiety	decreased activity	weak cry	body temperature in the armpit
5 (16,6%)	5 (16,6%)	5 (16,6%)		37.5^{0}C-38.0^{0}C

Conslusions

- The period of adaptation is characterized by imperfect heat regulation processes.
- Physiological processes for newborns in the postnatal period, if certain temperature conditions of the external environment, humidity, care, feeding are not observed can assume pathological features.
- It was revealed that the main reason for the appearance of early clinical signs of hypothermia, overheating and mild hypothermia are infringements of thermal comfort, as well as humidity conditions and flawed child care at home.
- A correct thermal regime, humidity, care, and breastfeeding are the key to the successful development of a child at home.