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**SURGICAL TREATMENT OF PATENT DUCTUS ARTERIOSUS  
IN PRETERM INFANTS**

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**Relevance.** The open arterial duct is an important component of the fetal circulation and is a vessel connecting the pulmonary trunk at its bifurcation to the aortic arch. It closes shortly after birth in most preterm infants. Patent Ductus Arteriosus is a congenital heart defect when the ductus arteriosus doesn't seal off during three days after birth.

According to the literature, in newborns with body weight <1500 g or at <30 weeks' gestation, a hemodynamically significant variant of the patent ductus arteriosus occurs in 49%-65% of cases. Prolonged functioning of the arterial ductus arteriosus is accompanied by the development of a number of severe pathological conditions, such as intraventricular hemorrhage, bronchopulmonary dysplasia and others, often ending in death or leading to disability of patients. Little is known about the effectiveness and safety of prophylactic surgical closure of the patent ductus arteriosus in extremely low birth weight infants. A Patent Ductus Arteriosus management strategy agreement, however, is still difficult.

**Aim:** to analyze methods of surgical treatment of Patent Ductus Arteriosus in preterm infants.

**Materials and methods.** The study analyzed 48 case histories of the preterm infants with Patent Ductus Arteriosus for the period 2022-2023 was carried out in Republican Scientific and Practical Center «Mother and Child».

**Results and their discussion.** Among infants (n=48) the gestational age was  $28 \pm 2,3$  weeks, including girls 19 (39,6%), boys 29 (60,4%). 95,8% of preterm infants had a body weight  $\geq 1,900$  g, 4,2% of preterm infants had a body weight  $\leq 1600$  (one newborn had weight 1400 g, second — 1560 g). Endovascular surgery to close the arterial duct was performed in 46 infants (body weight  $\geq 1,900$  g). In newborns with a very low body weight (according to ICD-10 classification) was performed thoracoscopic ligation of the Patent Ductus Arteriosus (infants with body weight 1400g and 1560g).

**Conclusion:** these finding suggest that endovascular surgeries to close the Patent Ductus Arteriosus was performed in children with a body weight  $\geq 1,900$  g (95,8% of cases). In newborns with a very low body weight (1400g and 1560g) was performed thoracoscopic ligation of the arterial duct (4,2% of cases).