

THORACOSCOPIC REPAIR OF CONGENITAL ESOPHAGEAL ATRESIA

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Introduction. Esophageal atresia is a rare congenital defect in children. The diagnosis is established immediately after birth. The newborn requires surgical treatment of the defect in the first days of life. The dynamic development in medical technology and invention of technologically advanced and miniaturized surgical tools have facilitated the introduction of new procedures of minimally invasive surgery.

Aim. To present a laparoscopic treatment method for congenital esophageal atresia. We present two cases of newborns with congenital esophageal atresia treated in our Department using a thoracoscopic method.

Materials and methods. Defect type, diagnostics, diagnosis, indication for treatment by a minimally invasive method, surgical treatment method, complications and treatment results are discussed. For surgical treatment of newborns video channel in HD resolution, 3 and 5 mm oblique optics and 3 mm laparoscopic tools were used. The surgery involved closing the tracheoesophageal fistula and end-to-end esophagus anastomosis.

Case study. The first infant presented the most common defect type, i.e., type III defect with fistula between the lower esophagus and the right bronchus. The first patient required converting to thoracotomy during the thoracoscopic treatment due to technical intraoperative difficulties. The second infant was operated on the 2nd day following birth. In this case, the entire surgery was completed thoracoscopically without complications. In both patients esophagus anastomosis was splinted post-operatively and pleural drainage was performed.

Results and discussion. During over a 6-month observation, both patients have been developing well and the esophagus function is correct. These early successful results of esophageal atresia treatment using the thoracoscopic method are comparable with the results of standard treatment. In long term observation, we expect to

avoid typical complications, such as scoliosis, associated with standard thoracotomy in small children.

Conclusions. Minimal traumatisation of tissues and intercostal muscles remaining intact particularly recommend this method of treatment for newborns. Its disadvantages include the technical complexity of the procedure itself which prolongs the time required to perform it as well as the need for appropriate equipment and well trained medical staff.