SVIII10: THORACOSCOPIC REPAIR OF OESOPHAGEAL ATRESIA: EXPERIENCE OF 18 PATIENTS FROM TERTIARY REFERRAL CENTRE

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Background Thoracoscopic repair of oesophageal atresia has become popular in many centres and indeed nominates high level of neonatal surgery. Here we report our experience as the tertiary referral centre.

Materials and methods Thoracoscopic technique was introduced in 2013 and starting with this date all patients diagnosed with oesophageal atresia were qualified to thoracoscopic repair. Retrospective analysis was carried out. Patient demographics, operative data, complications and associated anomalies were noted.

Results A total of eighteen patients were successfully repaired thoracoscopically with standarized operative technique. 7 were female and 11 were male. The mean body weight of the neonates at oesophageal anastomosis was 2300 g (range: 1450 g–3800 g). We found 16 newborns with type C atresia, 1 with type A and 1 type D. There were coexisting born defects in 50% of neonates. In 2 patients due to extreme immaturity or poor general status at first stage operation only the fistula was closed and delayed primary thoracoscopic oesopageal anastomosis was carried out. In case of long gap atresia, internal suture traction allowed for successful anastomosis at the second stage operation. There were no conversions nor perioperative deaths related to the procedure. Four patients had reversible intra-operative instability due to pneumothorax intolerance. In one patient a small tear of the trachea was created which was successfully sewn up endoscopically. The mean operative time was 162 min. There were no substantial anastomotic leaks but in one patient after early accidental G-tube removal, attempt of second tube insertion resulted in anastomosis perforation which healed on conservative management without further consequences. Two patients died in the late post-operative period due to prematurity complications and Gram positive sepsis. Three patients required more than one endoscopic dilatation due to symptoms of anastomotic stricture.

Conclusions In experienced hands, thoracoscopic repair of oesophageal atresia results with less surgical trauma and better cosmetic effect. Perfect operative view allow for precise preparation and anastomosis which results with low anastomotic stricture incidence. In our series the degree of prematurity and standard of post-operative care contributes significantly to post-operative outcome.

Key words thoracoscopy, oesophageal atresia, outcome