

OUTCOMES OF FUNDOPLICATION IN OESOPHAGAL ATRESIA ASSOCIATED GORD

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Aim of the Study : Conservative management of gastrooesophageal reflux (GORD) in oesophageal atresia (OA) is sometimes inefficient and fundoplication is required. We assessed the outcomes of fundoplication among OA patients from 1980 to 2016.

Methods: After ethical consent hospital records of 290 patients including 22 referred patients were reviewed. Included were 262 patients with end-to-end repair. Excluded were patients who underwent oesophageal reconstruction (n=23) or no repair (n=5). Primary outcome measures included survival, use of native oesophagus, failure of fundoplication and long-term endoscopic results.

Main Results: Gross types of OA in 262 patients were A (n=12), B (n=2), C (n=217), D (n=10), E (n=19) and F (n=2). Eighty-six (33%) patients, type A (n=12, 100%), B (n=2, 100%), C (n=68, 31%), D (n=3, 30%) and F (n=1, 50%) underwent fundoplication at the median age of 5.4(IQR 3.1-16) months. Main indications included recalcitrant anastomotic stenosis (RAS) in 43(48%), respiratory symptoms in 17(20%) and acute life threatening events (ALTE) in 15(17%) of patients. Associated tracheomalacia in 21(25%) patients was treated with aortopexy. Median follow-up was 7.5(IQR 1.8-15) years. RAS resolved in 31(72%) patients, whereas twelve (28%) with unresolved RAS underwent oesophageal resection (n=9) or replacement (n=3). Six (7%) patients died of heart failure (n=4), bolus impaction (n=1) and ALTE (n=1). Fundoplication failed in 27(31%) patients and thirteen (15%) underwent redo fundoplication. Fundoplication failure was predicted by long - gap OA RR=5.4(95%CI=1.9-15), p=0.002. In total GORD associated symptoms persisted in seven (8%) patients including one with permanent feeding jejunostomy. Latest endoscopy showed moderate or severe oesophagitis in 8% of fundoplicated and in 3% non-fundoplicated patients and intestinal metaplasia in 3% and 1% (p=0.20-0.29).

Conclusion: Fundoplication provided a safe and relatively effective control of OA associated symptomatic GORD and oesophagitis. In long-gap OA failure rate of fundoplication was high.