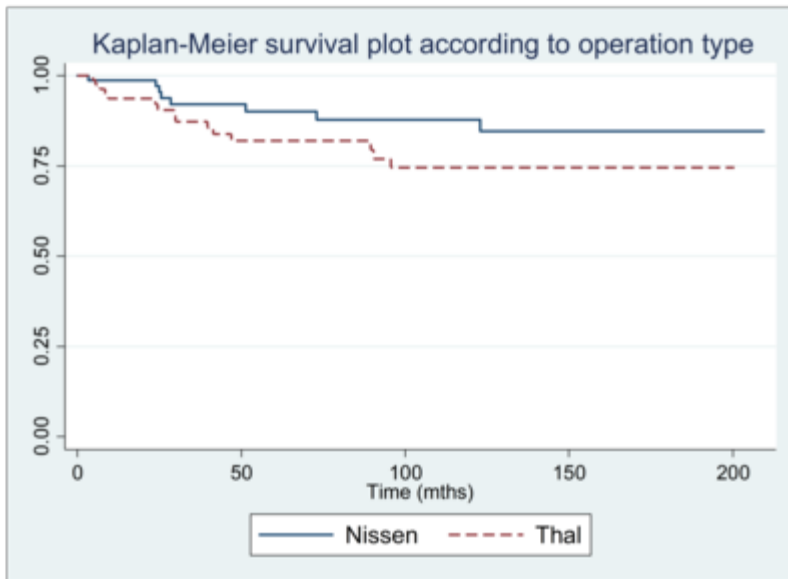


# Oral Abstracts

presence of hiatus hernia at operation.



**Conclusions:** Gastro-oesophageal reflux is a functional problem and outcomes change the longer patients are followed up. There was no statistically significant difference in the “absolute” failure rates between Nissen and Thal fundoplication, but Thal fundoplication had a higher failure rate if “relative” failures were included. Neurologically impaired children have a high mortality rate following fundoplication, unrelated to their surgery. Failure can occur many years after surgery.

## (S015) OPEN VERSUS LAPAROSCOPIC APPROACH FOR MORGAGNI’S HERNIA IN INFANTS AND CHILDREN: A SYSTEMATIC REVIEW AND META-ANALYSIS.

Elke Zani-Ruttenstock<sup>1</sup>, Vincenzo D Catania<sup>1</sup>, Giuseppe Lauriti<sup>2</sup>, Lina Antounians<sup>1</sup>, Pierluigi Lelli Chiesa<sup>2</sup>, Agostino Pierro<sup>1</sup>, Augusto Zani<sup>1</sup>, <sup>1</sup>The Hospital for Sick Children, <sup>2</sup>Spirito Santo Hospital, Pescara

**AIM OF THE STUDY:** The laparoscopic repair of Morgagni’s hernia has become popular in infants and children and it has been reported to be safe and feasible in this patient population. However, it is still unclear whether the laparoscopy is superior to open surgery in repairing Morgagni’s hernia.

**METHODS:** Using a defined search strategy (PubMed, Medline, OVID, Embase, Cochrane databases), three investigators independently identified all comparative studies reporting data on open or laparoscopic Morgagni’s hernia repair in patients younger than 18 years of age. Case reports and opinion articles were excluded. Meta-analysis was conducted according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines and analysed using RevMan 5.3. Data are expressed as mean±SD. The present study was registered on PROSPERO – international prospective register of systematic reviews.

**MAIN RESULTS:** Systematic review – Of 774 titles or abstracts screened, 3 papers met our search criteria. Selected articles included 92 patients, with 53 (58%) open approaches and 39 (42%) laparoscopic procedures. Meta-analysis – The length of surgery was reported only in one paper, where it was reported to be shorter in the laparoscopic (40±15min) in comparison to open procedure (90±17min; p<0.00001). Laparoscopic repair was associated with shorter length of hospital stay (1.5±0.6days) in comparison to open procedure (4.0±1.4days; p<0.00001, Standardized Mean Difference -1.94, 95% confidence interval (CI) -2.55 to -1.33, I<sup>2</sup>=0%; Figure). There was no difference with regards to post-operative complications between the two groups (laparoscopy: 8.8%, open: 9.4%; p=0.087, odds ratio (OR) 0.89, 95% CI 0.21 to 3.70, I<sup>2</sup>=18%), as well as considering the prevalence of recurrence (laparoscopy: 2.9%, open: 5.7%; p=0.84, OR 0.82, 95% CI 0.12 to 5.52, I<sup>2</sup>=38%).

**CONCLUSION:** Comparative but non-randomized studies indicate that laparoscopic repair of Morgagni’s hernia can be performed in infants and children. Laparoscopy is associated with shortened length of surgical procedure and hospital stay in comparison to open surgery. Prospective randomized studies with long-term follow-up would be needed to confirm present outcome data and optimize the surgical technique in order to reduce the rate of surgical complications.