

LAPAROSCOPY IS SAFE AND EFFECTIVE IN CHILDREN WITH REPAIRED GASTROSCHISIS OR EXOMPHALOS

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Aim of the study: A proportion of infants with repaired gastroschisis or exomphalos will require further abdominal surgical procedures in childhood. In this patient population laparoscopy is often considered to be contra-indicated particularly in those with exomphalos major and associated congenital cardiac anomalies and in gastroschisis due to concern about adhesions. We report our single-centre experience of a broad variety of laparoscopic procedures in infants with repaired congenital abdominal wall defects (AWD).

Methods: With audit approval infants with repaired AWD were identified from a prospectively maintained database. Case records retrospectively reviewed by 2 independent reviewers. Data are quoted as median [range].

Main Results: 102 infants (n=71 gastroschisis, n=24 exomphalos major, n=7 exomphalos minor) were identified from the 14-year period 2003-2017. 36 (35%) infants required additional abdominal surgical procedures. 9 (9%) infants required >1 procedure. In 19 (53%) infants (gastroschisis n=7, exomphalos major n=10, exomphalos minor n=2) these procedures were performed laparoscopically at a median age of 12 [2-130] months. Laparoscopic procedures performed (n=26) comprised; inguinal hernia repair (n=8), staged orchidopexy (n=7); Ladd's procedure (n=5); diaphragmatic hernia repair (n=2); feeding jejunostomy (n=1); reduction of intussusception (n=1); appendicectomy (n=1); adhesiolysis (n=1). 6 (32%) infants had >1 laparoscopic procedure. 9 infants with exomphalos major and congenital cardiac anomalies underwent laparoscopy (n=3 >1 procedure). Median follow-up was 42 months (5-136 months). There were no conversions or complications in those undergoing laparoscopic surgery.

Conclusion: A third of our patients with repaired gastroschisis or exomphalos required additional, including multiple, abdominal procedures in keeping with other published series. 53% of these were performed laparoscopically with no complications or conversions. This is the largest series of diverse laparoscopic operations in AWD. Repaired AWD should not be considered a contraindication to minimally invasive surgery, even in high risk groups such as exomphalos major with associated congenital cardiac anomalies.