Burden and mortality of congenital gastrointestinal anomalies: insights from a nationwide cohort study

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Abstract PurposeImproved perioperative care has enhanced survival in children with congenital gastrointestinal conditions and abdominal wall defects (AWD). However, epidemiological and surgical outcomes in developing nations are still scarce. Our aim was to assess the burden and mortality of common congenital gastrointestinal anomalies and AWD in Malaysia, and their influencing factors.MethodsUsing the Global PaedSurg stud' protocol with permission, we performed a prospective cohort study on children presenting for the first time between October

2021 and April 2022 with these conditions: Esophageal atresia (EA), congenital diaphragmatic hernia (CDH), intestinal atresia, gastroschisis, exomphalos, anorectal malformation (ARM) and Hirschsprung's disease. We compared mortality and 30-day outcome data across different geographical regions in Malaysia.ResultsThere were 228 patients with 242 study conditions (EA n = 28, CDH n = 36, intestinal atresia n = 49, gastroschisis n = 12, exomphalos n = 8, ARM n = 77, Hirschsprung's disease n = 32). Our mortality rate was 8.8%; 60% of these were CDH patients. Factors significantly associated with mortality were CDH diagnosis, central venous access requirement, higher American Society of Anesthesiologists (ASA) score, blood transfusion and ventilation requirement.ConclusionDiagnosis of CDH is the most important predictor for sepsis on arrival and mortality, therefore measures should be taken for early recognition and aggressive management.

Keywords

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