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Title: Surgical Emergency in the Neonates

Background: Surgical emergency in the neonates is a congenital serious and dangerous event or situation which need immediate surgical action to deal with it. Congenital diaphragmatic hernia (CDH) and esophageal atresia (EA) are the most common conditions which cause respiratory distress in the first few hours of life. Gastroschisis (GS) is the most common abdominal wall defect which needs prompt surgical management after birth.

Objective: To elucidate the incidence, management and outcomes of CDH, EA and GS.

Material and Methods: A retrospective analysis of patients diagnosed with CDH, EA and GS, who were treated at the Neonatal Surgical Units (NSU), Department of Surgery, Queen Sirikit National Institute of Child Health, during January 2009 to December 2011, was carried out.

Results: A total of 1,196 patients were treated at the NSU. Thirty-three (2.8%) had CDH, 89 (7.4%) had EA and 187 (15.6%) had GS. Preoperatively, 29 cases of CDH required conventional ventilator and 5 required no ventilator support, 5 suffered from severe pulmonary hypertension and passed away before surgery. Twenty-eight patients underwent primary repair of diaphragmatic defect. Age at repair was 2-12 days (mean 4.4). Survival rate in operated case was 92.8% and overall survival rate was 78.8%. Of 89 patients with EA, 46 required conventional ventilator in preoperative period, 21 underwent primary repair of the esophagus, 68 had staged repair of the esophagus. Nine patients subsequently passed away from severe congenital heart disease. The overall survival rate was 89.9%. Of 187 patients with GS, 59 required conventional ventilator in preoperative period, 108 underwent primary closure of abdominal wall defect, 79 had staged closure. Nine patients subsequently passed away from respiratory failure and septicemia. The overall survival rate was 95%.

Conclusions: More than one fourth of the neonates with congenital surgical anomalies require immediate surgical management. Related congenital anomalies influence successful treatment and outcomes of these conditions. The excellent outcomes of this study are comparable with those of international tertiary centers in the developed countries.

เสนอโดยนางอัจฉริยา ทองสิน นายแพทย์เชี่ยวชาญ สถาบันสุขภาพเด็กแห่งชาติมหาราชินี ในการประชุมวิชาการ Emergency Medicine in Asia – How do we deal with it? ซึ่งจัดขึ้นระหว่างวันที่ ๑๗ – ๒๓ กรกฎาคม ๒๕๕๕ ณ ประเทศญี่ปุ่น