

Editorial

Pediatric Surgical Services in Kingdom of Bahrain: Where Do We Stand?

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Pediatric surgery has different subspecialties in many medical centers around the world including fetal surgery, endo-surgery, transplant, oncology, urology and trauma. The discussion will be focused on fetal surgery and endo-surgery.

Bahrain Med Bull 2019; 41(4): 205

The first open maternal fetal surgery for correction of an anatomic anomaly was published 30 years ago by Harrison et al¹. The concept of having a fetus as a patient was the subject of ethical and philosophical debate for many years. The surgical and diagnostic tools for prenatal management of the fetus were just being developed in the last decade².

Over the past few years, great progress has been made in diagnosing fetal abnormalities, performing surgical interventions when indicated and predicting the outcome of these procedures. The ethical framework for maternal fetal intervention is now well-developed and the concept of the fetus as a patient has become a standard of care³.

Fetal surgery is a rapidly evolving field and requires comprehensive counseling of prospective parents in centers with focused expertise in fetal anomalies³. The future expansion of fetal surgery depends on important factors. First is the benefit to patients which must be clearly established by randomized clinical trials including minimally invasive technique, second is the reduction of maternal and fetal risks, and third is the development of imaging technology⁴.

Anomalies currently managed successfully by fetal surgery include congenital cystic adenomatoid malformation (CCAM), twin-twin transfusion syndrome (TTTS), diaphragmatic hernia, posterior urethral valves (PUV), myelomeningocele and sacrococcygeal teratoma⁴.

Another growing and expanding subfield in pediatric surgery is advanced minimally invasive (keyhole) surgery. Many complex open surgeries can be performed safely with excellent outcome and low conversion rates by minimal invasive robotic techniques.

Laparoscopic and thoracoscopic robotic-assisted surgeries in neonates and infants including fundoplication, esophageal atresia, Kasai procedure, Ladd's procedure, bowel atresia and congenital diaphragmatic hernia repairs were performed with successful outcomes in pioneering centers with expertise in pediatric endo-surgery^{5,6}.

Pediatric minimally invasive surgery has developed more slowly than adult minimally invasive surgery because the focus of the market was of the adults and the advanced techniques required for pediatric laparoscopic and thoracoscopic procedures are associated with a long learning curve^{5,6}.

CONCLUSION

Medical centers and hospitals dealing with pediatric surgical patients should have a wide range of specialization in pediatric surgery to provide high standards of care. The future of pediatric surgery is directed towards advanced minimally invasive robotic techniques.

Potential Conflicts of Interest: None.

Competing Interest: None.

Sponsorship: None.

Acceptance Date: 10 October 2019.

Ethical Approval: Approved by the Department of Pediatric Surgery, Salmaniya Medical Complex, Bahrain.

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