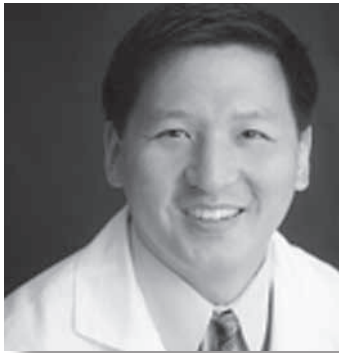




ROBOTIC SURGERY IN CHILDREN FOR PEDIATRIC UROLOGY CONDITIONS



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In the February 2008 issue of the Los Angeles Pediatric Society (LAPS) newsletter, Mark Powell, MD noted the society's educational mission of keeping its members abreast of the latest medical advances that will benefit our pediatric patients. This article hopefully serves as one of the many examples that the society employs to help pediatricians deliver high quality pediatric care to their patients.

Minimally invasive surgery in children in the field of pediatric urology began in the mid-1970s where laparoscopy was used for the diagnosis of cryptorchidism (undescended testes). Since then, laparoscopic surgery has become a mainstay in the diagnosis and treatment of pediatric urologic conditions. Laparoscopic surgery has been shown to be a safe and effective modality of treatment, especially

for ablative procedures such as nephrectomy and adrenalectomy. However, for reconstructive procedures such as pyeloplasty and ureteral reimplantation, only a modest adoption by the pediatric urology field has limited the availability of minimally invasive surgery to pediatric urology patients, with one key reason being the inefficiencies of laparoscopic suturing required for most reconstructive procedures.

Robotic surgery using the Da Vinci Surgical robot (Intuitive Surgical, Sunnyvale, CA) represents the next generation of laparoscopic surgery for pediatric urology, and is on course to revolutionize pediatric urologic surgery as it has done for adult urologic surgery (robotic prostatectomies for prostate cancer). Since FDA approval was granted in 2000, the Da Vinci surgical robot has enabled a minimally invasive option to children for their pediatric urology needs due to its three-dimensional and magnified visualization, intuitive computer-enhanced motion control, and its fully articulating "Endowrist" instruments.

Essentially, the Da Vinci

robot allows more reconstructive procedures to be performed in a minimally invasive fashion, where the experienced surgeon can mimic open surgical movements and technique with the robotic arms. As a result, robotic surgery represents the latest advances in minimally invasive surgery for children, and the advantages include:

- 1. Smaller incisions with improved post-op cosmesis
2. Better visualization and instrument control during surgery, which should lead to safer procedures and better outcomes for the pediatric patient.
3. Shorter hospital stays
4. Decreased postoperative pain medication requirements

Robotic pyeloplasty for ureteropelvic junction obstruction and robotic ureteral reimplantation for vesicoureteral reflux are the most common pediatric urology procedures for which the Da Vinci robot is currently being used. Other uses include robotic ureteroureterostomy, Mitrofanoff continent urinary diversion, and

bladder augmentation. Essentially most reconstructive procedures that require suturing can be performed with the Da Vinci robot as a minimally invasive option; however this decision should be an informed decision between the patient's family (and the patient if appropriate) and the treating surgeon.

Robotic surgery in children has been used in other pediatric surgical specialties, including pediatric surgery, pediatric cardiac surgery, pediatric gynecology, and pediatric kidney transplantation (donor nephrectomy).

Minimally invasive surgery for pediatric urology conditions continues to evolve, and robotic surgery has made this option available for children who require reconstructive surgery for their pediatric urology conditions. I encourage both parents and pediatricians to explore the option of minimally invasive robotic surgery when reconstructive surgery has been recommended. More information about our division can be found at www.PediatricUrologyLA.com and at www.CHLA.org.

BRENNEMANN PREVIEW 2009

Since sixty six follows sixty five, the Los Angeles Pediatric Society (LAPS) is looking forward to celebrating the sixty sixth edition of the Brennemann Lectures at the Disney's Paradise Pier Hotel. Save October 22nd through the 25th, 2009. The lectures actually begin on Friday morning the 23rd. I'm pleased to announce we have secured the commitments of four outstanding authorities. Vincent J. Wang, M.D. (Division of Emergency Medicine, Childrens Hospital of Los Angeles) will address the field of pediatric emergency medicine. Dr. Wang is an enthusiastic and outstanding speaker. David Ferry, M.D. (Cedars-Sinai, UCLA) will address pressing issues in cardiology. An old friend and a terrific speaker, Wilbert (Bill) Mason, M.D. (Childrens Hospital, Los Angeles) will bring us up to speed on infectious diseases. The important subject of Pediatric Urology will be discussed by Chester Koh, MD. Dr. Koh is a member of the Division of Pediatric Urology at Childrens Hospital of Los Angeles and represents the cutting edge in new developments in his field of interest.

The Clifford Rubin Lectureship should also serve as an outstanding attraction. Needless to say, the Disneyland Park and California Adventure Land Park offer boundless entertainment for attendees and their families. I urge you to attend what should be an educational and entertainment treat. More to follow and see you at "The Magic Kingdom."



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