Unmoderated Posters
Female Urology

UP-57
Changes in Pelvic Organ Prolapse Surgery Over the Last Decade Among U.S. Urologists

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Introduction: Surgical correction of pelvic organ prolapse (POP) has undergone a transformation over the past decade with the introduction of transvaginally placed mesh kits and the proliferation of laparoscopic/robotic surgery. Training in POP surgery, ease of mesh kit use and FDA warnings on mesh use have all influenced practice patterns. We investigated trends in the use of these treatments over the last decade.

Methods: POP procedures (colporrhaphy, colpopexy, hysterectomy), mesh usage (placement, revision), and pessary procedures were obtained from the American Board of Urology (ABU) via annualized case log data from re/certifying urologists between 2003 and 2012. Associations between surgeon characteristics and use of POP procedures were evaluated.

Results: Among 6,355 urologists, 2,192 reported performing any procedures for POP. POP procedures have risen over the past decade, from 930 procedures in 2003 to 6,978 procedures in 2012. Colporrhaphies have increased each year, from 806 to 2670. Colpopexies increased steadily from 2003 (n=32) through 2012 (n=1414). Vaginal colpopexies increased from 24 to 1016. Sacrocolpopexies rose from 8 cases in 2003 to 398 cases by 2012. Laparoscopic sacrocolpopexies increased exponentially, reaching 282 cases by 2012. Mesh insertion rose sharply from 10 in 2005 to 640 in 2006, and to 1552 in 2012 ($p < 0.0005$). Mesh revisions have increased consistently up to 214 in 2012. Nearly 40% of surgeons who perform POP surgery used mesh. The rate of hysterectomies and pessary use has remained relatively stable over time. Urologists with a female urology fellowship performed more POP procedures ($p<0.0005$).

Conclusions: The prevalence of POP surgery has increased significantly over the last decade. The rise in colporrhaphies has been mirrored by the rise in mesh utilization. Sacrocolpopexy has increased exponentially perhaps due to adoption of robotic techniques. Proliferation of mesh-based surgeries has given rise to increased mesh revision surgeries for complications.

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Imaging and Radiology

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Renal Artery Embolization for Partial Nephrectomy Bleeding Management

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Introduction and Objectives: To evaluate the angiographic characteristics and utility of renal artery embolization for the management of renal bleeding after partial nephrectomy. We present a retrospective study regarding the management of postoperative bleeding in patients who underwent open or laparoscopic partial nephrectomy. Preoperative imaging findings were analyzed and compared with postoperative outcomes, as well as with patients who did not undergo embolization.

Methods: This study included 244 patients who underwent open or laparoscopic partial nephrectomy between 2002 and 2012. Tumour size, clinical stage, Fuhrman grade, and non-hemorrhagic complications were recorded. Preoperative imaging was evaluated by R.E.N.A.L score (1- Radius (Max diameter in cm) 2- Exophytic / Endophytic 3- Nearness of the tumour to the sinus or collecting system 4- Anterior / Posterior 5- Location relative to the polar lines).

Results: In patients who experienced postoperative hemorrhage, renal artery embolization effectively halted its progression in most cases. This was associated with fewer additional complications and significantly shorter stays in hospital. A discussion of correlation between imaging findings and hemorrhage is detailed.

Conclusions: Hemorrhage following partial nephrectomy is associated with significant morbidity and protracted stays in-hospital. Renal artery embolization represents a safe and effective method to reduce both of these factors and should be considered in any partial nephrectomy patient with postoperative hemorrhage.