Quill

THE BARBED
SUTURE PIONEER

Quill Publication Index
Urologic Surgery

PREMIER SURGICAL

Accessible Support, Advancing Surgery

SUPPORTING
SURGEONS
ALWAYS

1. **ROBOTIC RADICAL PROSTATECTOMY IN THE COMMUNITY SETTING – THE LEARNING CURVE AND BEYOND: INITIAL 200 CASES**. PATEL VR, TULLY AS, HOLMES R, LINDSAY J. UROLOGY CENTERS OF ALABAMA, BIRMINGHAM, ALABAMA. THE JOURNAL OF UROLOGY. 2005. 174: 269-272.

"Conclusions: *Our initial experience with robotic radical prostatectomy is promising. The learning curve was approximately 20 to 25 cases. With a structured methodical approach, we were able to implement robotics safely and effectively into our community practice with minimal patient morbidity, and good oncological and functional outcomes."*

2. **EVALUATION OF A NOVEL KNOTLESS SELF-ANCHORING SUTURE MATERIAL FOR URINARY TRACT RECONSTRUCTION.** WELD KJ, AMES CD, HRUBY G, HUMPHREY PA, LANDMAN. JOURNAL OF UROLOGY 2006; 67:1133-1137.

*"**Conclusions**. Self-anchoring suture secures tissue approximations at loads equivalent to tissue approximations with standard tied suture. Self-anchoring suture obviates the need for knot tying and provides a watertight anastomosis. With laparoscopic knot tying experience, anastomotic time with SAS and standard suture do not differ. Self-anchoring suture might induce more fibrosis. Long-term follow-up evaluation will be required before clinical application."*

3. **BIDIRECTIONAL-BARBED SUTURED KNOTLESS RUNNING ANASTOMOSIS VS. CLASSIC VAN VELTHOVEN IN A MODEL SYSTEM.** MORAN ME, MARSH C, PERROTTI M. JOURNAL OF ENDOUROLOGY 2007; 21:1175-1178.

"Conclusions*: It appears from our preliminary work that a bidirectional-barbed suture might improve the vesicourethral anastomosis during a robotic radical prostatectomy. Further investigations should be done to measure the disruptive force necessary to distract these sutures, whether the applied forces of the barbs are adequate for maintaining a watertight seal, and the reproducibility of our results by other surgeons. All of these investigations are in progress in our laboratory."*

4. **KNOTLESS CLOSURE OF THE COLLECTING SYSTEM AND RENAL PARENCHYMA WITH A NOVEL BARBED SUTURE DURING LAPAROSCOPIC PORCINE PARTIAL NEPHRECTOMY.** SHIKANOV S, WILLE M, LARGE, M, LIFSHITZ DA, ZORN KC, SHALHAV AL, EGGENER, SE. JOURNAL OF ENDOUROLOGY. 2009: 23(7):1157-60.

*"**Conclusions:** In a porcine laparoscopic partial nephrectomy model, it appears that knotless barbed suture is as effective, efficient, and safe as a conventional technique. Further evaluation in humans is warranted and required."*

5. **USE OF A BIDIRECTIONAL BARBED SUTURE AND EARLY CLAMP REMOVAL IN LAPAROSCOPIC PARTIAL NEPHRECTOMY.** METCALF M, LANGILLE G, RENDON R. CANADIAN UROLOGICAL ASSOC MEETING ABSTRACT. JUNE 29, 2010 VOL 4, SUPP 1.

"Conclusions: *We have observed that our technique has increased the ease of operation and appears to aid with intraoperative haemostasis. Preliminary results demonstrate a decrease in ischemia time and postoperative bleeding. WE have now adopted this method for all our open and laparoscopic partial nephrectomies."*

6. **BARBED SUTURE FOR RENORRHAPHY DURING ROBOT-ASSISTED PARTIAL NEPHRECTOMY.** SAMMON JD, KAUL S, BHANDARI A, PATROS F, POKALA N, ROGERS C. J ENDOUROL PART B VIDEOUROLOGY. 2010. DOI: 10.1089/VID.2010.0073.

"Conclusions: *Use of barbed suture for the renorrhaphy of RAPN simplifies the technique and improves efficiency, potentially allowing for reduced warm ischemia times and tighter renal closures."*

7. **BIOMECHANICAL PROOF OF BARBED SUTURES FOR THE EFFICACY OF LAPAROSCOPIC PYELOPLASTY.** AMEND B, MULLER, O, BEDKE J, LEICHTLE U, NAGELE U, KRUK S, STENZL A, SIEVERT K. JOURNAL OF ENDOUROLOGY. 2011. VOL 25.

"Conclusion: *A main characteristic of barbed sutures is the advantage of immediate and consistent tissue adaptation along the whole suture line. The waiving of any knot shortens surgery time. Reduced suture-line shortening with equal leak tightness even facilitates circular suturing with a reduced risk of reobstruction."*

8. **SELF-RETAINING BARBED SUTURE FOR PARENCHYMAL REPAIR DURING LAPAROSCOPIC PARTIAL NEPHRECTOMY; INITIAL CLINICAL EXPERIENCE.** OLWENY EO, PARK SK, SEIDEMAN CA, BEST SL, CADEDDU JA. DEPARTMENT OF UROLOGY, UNIVERSITY OF TEXSAS SOUTHWESTERN MEDICAL CENTER, DALLAS, TX, USA. BJU INTERNATIONAL. APRIL 2011; 1-4.

*"**Conclusion:*** *In early experience with the use of SRBS for parenchymal repair during LPN in humans is safe, and is associated with a significant reduction in warm ischaemia time. Additionally, the self-cinching mechanism of SRBS may be beneficial in reducing rates of clinically significant bleeding after LPN, although this observation warrants further prospective study with larger numbers of patients. Lastly, further studies to identify any benefit of SRBS use during RALPN are needed."*

9. **USE OF A KNOTLESS, BIDIRECTIONALLY-BARBED SUTURE FOR BLADDER NECK RECONSTRUCTION, POSTERIOR RECONSTRUCTION AND THE VESICOURETHRAL ANASTOMOSIS DURING ROBOTIC-ASSISTED LAPAROSCOPIC PROSTATECTOMY: DESCRIPTION OF THE TECHNIQUE.** RAIR VALERO**,** YOUNG HWII KO, SANKET CHAUHAN, OSCAR SCHATLOFF, ANANTHAKRISHNAN SIVARAMAN, RAFAEL F. COELHO, KENNETH J. PALMER, HUGO DAVILA, VIPUL R. PATEL. ACTAS UROLÓGICAS ESPAÑOLAS. DOI:10.1016/J.ACURO.2011.06.010

*"**Conclusion:*** *The authors successfully modified their RARP technique to take advantage of the unique properties of the bidirectionally-barbed suture. Use of this technology seemed to be associated with improved outcomes. Comparative studies to evaluate objective outcomes such as leakage rates and operative time are underway to confirm this subjective impression.**"***

10. **APPLICATION OF SELF-RETAINING BIDIRECTIONAL BARBED ABSORBABLE SUTURE IN RETROPERITO-NEOSCOPIC PARTIAL NEPHRECTOMY.** KE W, YU-LIAN Z, CHUN-HUA L, DONG-FU L, CHANG-PING M, JIAN-MING W, ZHEN-LI G. INTERNATIONAL BRAZILIAN JOURNAL OF UROLOGY. 2014; 40: 220-224.

"Conclusions: *The application of self-retaining bidirectional barbed absorbable suture in retroperitoneoscopic partial nephrectomy could shorten suture time and warm ischemia time, with good safety and feasibility, worthy of being used in clinic."*

11. **EFFICACY AND SAFETY OF BARBED SUTURE IN MINIMALLY INVASIVE RADICAL PROSTATECTOMY: A SYSTEMATIC REVIEW AND META-ANALYSIS.** LIN Y, LAI S, LIU Q, LIAO B, HUANG J, DU L, WANG K, LI H. THE KAOHSIUNG JOURNAL OF MEDICAL SCIENCES. 2017; 33: 107-115.

*"**Conclusions:** Significant decline of suture time, operative stay, and hospital stay were found using barbed suture during MIRP. LRP seemed to be safer in the application of the barbed suture. Furthermore, more evidence is need to validate this state-of-the-art technology and future studies should be conducted to analyze its impact on cost-effectiveness."*