**NOTE 7**

**PATIENT 1003**

**DATE: 4/7/21**

DATE OF SURGERY:  April 07, 2021  
        
PREOPERATIVE DIAGNOSIS:    
1. Prune Belly syndrome  
2. Left cystic dysplastic kidney  
3. Right solitary functional kidney with severe hydroureteronephrosis  
4. Partial right UVJ obstruction  
5. Posterior urethral valves  
6. Congenital phimosis and redundant foreskin  
        
POSTOPERATIVE DIAGNOSIS:    
1. Prune Belly syndrome  
2. Left cystic dysplastic kidney  
3. Right solitary functional kidney with severe hydroureteronephrosis  
4. Partial right UVJ obstruction  
5. Posterior urethral valves  
6. Congenital phimosis and redundant foreskin  
        
PROCEDURES:     
1. Cystourethroscopy  
2. Transurethral resection of posterior urethral valves  
3. Circumcision  
4. Right cutaneous ureterostomy formation  
5. Removal of right percutaneous nephrostomy tube  
        
ATTENDING SURGEON:  Tate Harley, MD  
  
CO-ATTENDING SURGEON: Larry Todd, MD  
[A second urology attending was required for this case due to the complexity, patient's young age and weight of 3.8 kg, and a trainee surgeon was unavailable for the entire duration of this case.]      
  
OTHER SURGEON:  Bill Arthur, MD  
        
COMPLICATIONS:  None.   
        
DRAINS:    
1. 8-Fr urethral foley to gravity  
2. 12-Fr red rubber catheter in proximal end of ureter through stoma  
        
SPECIMENS:    
1. Bladder urine sent for culture.   
2. Right ureter urine sent for culture.  
        
OPERATIVE INDICATIONS:  
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Patient is a 43 day old baby boy, born at 36 weeks gestation, with Eagle Barrett syndrome (prune belly), pulmonary hypoplasia, right megaureter from partial UVJ obstruction, and left cystic dysplastic kidney. He is s/p right nephrostomy tube placement. Imaging done on 4/5/21 demonstrated a tortuous ureter on antegrade nephrostogram, with drainage into the bladder. The bladder was large and capacious, with a closed patent urachus, and no VUR, but there was suggestion of posterior urethral valves.  
After discussing the indications and need for the procedure, in conjunction with the nephrology team and the NICU, I discussed the risks of the procedure, including bleeding, infection, sepsis, injury to bowel, great vessels, injury to urethra and bladder, such as stricture after valve ablation, and stenosis and prolapse of ureterostomy. All of their questions were answered to their satisfaction and the parents wished to proceed.  
  
DETAILS OF PROCEDURE AND FINDINGS:  
        
The patient was brought back to the operating room and placed in supine position.  Anesthesia was administered by endotracheal tube.  Intravenous and monitoring lines were placed.  Adequate padding was provided at all pressure points.  The genitourinary area was prepared and draped in sterile fashion.  A standardized surgical time out was performed and confirmed the correct site, side, and procedure.  The time out was performed by Dr. Tate Harley and Dr. Larry Todd and was agreed on by the operating room staff and Anesthesia team.  
   
A 6.5-Fr cystoscope was inserted gently per urethra after dilation of the urethral meatus. The pendulous urethra was normal, and the sphincter complex was normal. We then entered a very dilated posterior urethra, with a flattened veru montanum, and the bladder neck was very high. We then entered the bladder, which was deviated to the left. A urine culture was obtained. The bladder was large, and overall smooth walled. The right and left ureteral orifices were orthotopic in nature. On urethral exit, we noticed an annular ring of tissue just distal to the veru montanum, consistent with posterior urethral valves. The 6.5-Fr cystoscope was removed.  
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Then, Dr. Larry Todd used a 9.5-Fr resectoscope with a hook electrode and inserted it gently per urethra. Valvular tissue was resected at the 5, 7, and 12-o'clock position. There was no evidence of bleeding. The sphincter was preserved. Crede maneuver after the resection demonstrated a weak, but straight stream. An 8-Fr foley was placed per urethra with 3 cc in the balloon.  
  
The patient was then repositioned to a flank position, left side down, and bumped with a gel roll. His extremities were padded, and he was secured to the table with wide silk tape and blue towels and a test roll of the table was done to make sure he was secure. He was then prepped with Chloraprep and draped in the usual sterile fashion.  
  
We marked the ASIS and the tip of the 12th rib. A 2.5 cm incision was made inferior and medial to the 12th rib, at the cephalad location of a Gibson line. Scarpa's fascia was divided using electrocautery, and the muscle layers were split. We encountered a bleeding vessel at this layer which was suture ligated with a 4-0 Vicryl stitch. Fascia was incised. The retroperitoneum was entered. The peritoneum was then reflected medially, and due to the laxity of the abdominal wall and his underlying Prune Belly syndrome, the peritoneum was very lateral and floppy. Nonetheless, we managed to get to the lower pole of the right kidney. There were a lot of cystic changes to the kidney at the lower pole. Careful attention was paid to not dissect medial to the lower pole just to make sure I didn't disrupt any the renal pedicle. The lower pole was dissected, and then retracted cephalad. Methylene blue was injected via the PCNT, in order to distend the ureter. At first, a visceral structure was identified, and a 4-0 Prolene holding stitch was placed through this. This turned out to be the peritoneum with a loop of bowel underneath. Retracting this medially, we then identified the ureter more caudally, and dissected this free from its retroperitoneal attachments. A 4-0 Prolene holding stitch was placed in the ureteral wall. A needle was used to puncture the ureter and methylene blue urine/irrigated was aspirated out. The fibrofatty tissue around the ureter was dissected, until a loop of ureter was able to be brought to the skin level.  
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Two additional holding sutures with 4-0 Prolene were placed on the antero-lateral ureteral wall. The middle stitch was removed. I then brought up the ureter to the skin level, and using a Weck blade, I incised the ureteral wall. We irrigated the PCNT with amphotericin irrigation and neo-poly irrigation.  
  
The fascia was closed on the cephalad aspect with a figure of 8 3-0 PDS to close the hiatus a little. I affixed the ureteral wall in four quadrants to the fascia with 3-0 PDS. Ureteral mucosa to skin maturation was performed with interrupted 5-0 Monocryl suture.  
  
A 12-Fr red rubber was placed up the proximal ureter and out the stoma. This was secured with a 3-0 Nylon stitch x2. Bacitracin was applied to the stoma site.  
  
Attention was now directed to the penis. This was prepped with betadine again, and a 4-0 Prolene holding stitch through the glans penis was placed. The adhesions were taken down, frenulum was released with cautery. Inner and outer preputial leaflets were marked and incised with cautery. Intervening skin was removed. Pinpoint hemostasis was achieved, and skin anastomosis was performed with 5-0 Plain gut suture (interrupted). Bacitracin was applied to the penis.  
  
The patient was undraped, and transferred to the NICU in stable condition, still intubated. He tolerated the procedure well. Please note that all needle, sponge and instrument counts were correct at the conclusion of the procedure.   
        
Dr. Tate Harley and Dr. Larry Todd were present for the entire surgical procedure.