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RENAL TRANSPLANTATION IN CHILDREN WITH POSTERIOR URETHRAL VALVES—REVISITED, A 10 YEAR FOLLOW-UP

R. Indudharra, M.D., L.M. Pérez, M.D., D.B. Joseph, M.D., F.A.A.P., A.G. Diethelm, M.D. University of Alabama at Birmingham, Children's Hospital, Birmingham, AL.

Background: Renal transplantation is a safe and effective treatment of end stage renal disease in children with posterior urethral valves. We have previously reported a 5 year experience showing the value of end stage renal disease in children with posterior urethral valves. We have previously reported a 5 year experience showing the value of end stage renal disease in children with posterior urethral valves. We have previously reported a 5 year experience showing the value of end stage renal disease in children with posterior urethral valves. We have previously reported a 5 year experience showing the value of end stage renal disease in children with posterior urethral valves.

Methods: This is a retrospective analysis of clinical case records and the computerized transplant data base of 268 children less than 19 years of age undergoing renal transplantation between May 1968 to November 1988 at our institution. 18 children had the sole diagnosis of PUV. These children were matched to a nonobstructed cohort comparing age, time and number of transplants, donor type, and immunotherapy. The same children used in the original 5 year report were reevaluated. All children have at least a 10 year follow up (range: 10–19).

Results:

<table>
<thead>
<tr>
<th>Results</th>
<th>PS = patient survival: GS = graft survival</th>
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<tbody>
<tr>
<td></td>
<td>Age 5yr PS 10yr PS 5yr GS 10yr GS Creatinine</td>
</tr>
<tr>
<td>PUV</td>
<td>9yrs. 94% 94% 69% 54% 2.3mg%</td>
</tr>
<tr>
<td>Control</td>
<td>12yrs. 100% 100% 52% 41% 2.0mg%</td>
</tr>
<tr>
<td>p value</td>
<td>0.06 0.65 0.97 0.37 0.35 0.66</td>
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</tbody>
</table>

Chronic rejection was the leading cause of graft failure in both groups (8 & 11 respectively).

Conclusions: Our ten year follow-up of renal transplantation in children with PUV is equal to children with renal failure due to nonobstructive causes. Five and 10 year graft survival was better but not statistically significant in children with PUV. Our concern regarding transplanting into a valve bladder was not substantiated. We are continuing with pre-transplant urodynamic evaluation and look forward to comparing the outcome in those children to this data.

LONG TERM OUTCOME IN CHILDREN FOLLOWING ANTENATAL INTERVENTION FOR OBSTRUCTIVE UROPATHY.

Andrew L Freedman, MD, Thomas S Vates, MD, Craig A Smith, MD, FAAP, Ricardo Gonzalez, MD, FAAP, Mark I Evans, MD, Mark P Johnson, MD. Depts of Urology, Children's Hospital of Michigan and Obstetrics and Gynecology, Hutzel Hospital, Wayne State University School of Medicine, Detroit, MI.

Background: The use of fetal intervention for obstructive uropathy remains controversial and little is known regarding the long-term outcomes of antenatally treated children. In order to better define the results of fetal intervention, we reviewed the long-term follow-up in children who underwent vesicoumyotomy shunt placement with attention to growth, development, and renal and bladder function. METHODS: From a series of 68 patients evaluated for presumed antenatal obstructive uropathy we identified 17 children who underwent vesicoumyotomy shunt placement and are survivors greater than two years of age. Follow-up evaluation included family interviews and a review of available medical records. RESULTS: Of 68 patients evaluated, 23 are alive at greater than two years of life of whom 17 underwent shunt placement and form the basis of this review. The mean age at follow-up was 54.3 months (range 25–114). The diagnosis was prune belly syndrome (8), posterior urethral valves (5), urethral atresia (1) and other in 3. Recent height was available in 11 children, 5 of whom are below the 5th percentile, 4 are between the 10–25th %tile, 1 between 25–50th %tile and 1 is above the 75th %tile. Of the 13 available weights, 4 are below the 5th percentile, 4 are between 5–25th, and 5 between 25–50th percentile. Seven require daily nutritional or metabolic supplements. One child has developmental delay and 2 require speech therapy. The children underwent a total of 58 operative procedures including 44 major procedures. Three patients with valves have required bladder augmentation and 4 children have undergone renal transplantation.

FEASIBILITY OF INTRAUTERINE FETAL THERAPY FOR OBSTRUCTIVE UROPATHY IN A MONKEY MODEL.

Wouter F. Feltz, MD, FAAP, Eric A. Steegers, MD, Robert P. de Gier, MD, Rene G. Aarnink PhD, Bas van der Wild, MD. Dept of Urology, Obstetrics and Gynecology, University Hospital Nijmegen, Nijmegen, The Netherlands.

Background: Obstructive uropathy detected by prenatal ultrasound investigations has led to conservative as well as invasive, treatment strategies. The use of new intervention techniques and surgical instruments may decrease the high complication rate and offer early treatment possibilities. METHODS: In three series of experiments with five rhesus monkeys (Macaca mulatta) each, different endoscopic intra-amniotic access techniques, morbidity, mortality and possibilities for fetoscopy were evaluated. The pregnant primates were operated upon at mid trimester (90 to 110 days; full term 164 days). Different evaluation methods were used for uterine activity and fetal growth during pregnancy. Current available minimal invasive techniques, instruments and scopes (Karl Storz) were used.

RESULTS: In all 15 monkeys, adequate fetoscopy was possible with no maternal mortality. Eleven of the 15 pregnancies were completed with no early or late complications. Electric uterine activity showed no early postoperative contractions in the first five animals. Serial ultrasound investigations for fetal biometry showed no disturbances of the intrauterine growth patterns in one group. Technical improvements changed the intrauterine access techniques from open placement of trocords to the use of sellinger...
techniques and gun introduction of needles with small caliber scopes could be used for fetoscopy and three canals could be placed offering the possibility of intrauterine manipulation.

Conclusion: New techniques have led to the improvement of intrauterine fetal access. Morbidity is mainly depending on the disruption of amniotic membranes and plays an important role in preterm abortion. New scopes will offer the possibility for fetal retrograde cystoscopy for which evaluation this model seems to be suitable.

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EXTRAVESICAL REPAIR OF THE OBSTRUCTED MEGAURETER DECREASES COST AND POSTOPERATIVE PAIN.

John P. Connor, MD, FRSC(C), Claude Reitelman, MD, FAAP, Mark Miller, MD, Kevin A. Burbige, MD, FAAP, Dept. of Urology, Columbia University, NYC, NY and Michigan Institute of Urology, Detroit, MI.

Background: The pressure to provide low cost, high quality health care has led all surgeons to reevaluate the procedures performed. We have found the extravasical approach to anti-reflux surgery provides excellent results in both cost and efficacy. We have since expanded this procedure to include obstructed megaureter repairs with significant advantages over intravesical techniques. Methods: 44 patients (52 ureters) underwent extravasical tapered repairs of obstructed megaureters from 1992 to 1996 at our institutions. The patients ranged in age from 1 month to 9 years. Preoperative evaluation consisted of renal sonography, nuclear renography, and voiding cysurographoms (VCUG). The surgical technique consists of the extravasical dissection of the megaureter to its stenotic insertion into the bladder. The detrusor is divided until the mucosa bulges through, muscle flaps are then created. At this point the ureter is dismembered and tapered (excisional) over a 10 Fr. catheter. A 5 Fr. ureteral stent is placed into the tapered ureter through a tiny bladder incision. The tapered ureter is anastomosed to the distal end of the bladder. The periureter is anastomosed to the tapered ureter through a tiny bladder incision. The tapered ureter is anastomosed to the distal end of the bladder. The periureter is anastomosed to the tapered ureter through a tiny bladder incision. The tapered ureter is anastomosed to the distal end of the bladder. The periureter is anastomosed to the tapered ureter through a tiny bladder incision. The tapered ureter is anastomosed to the distal end of the bladder.

Conclusion: Extravesical megaureter repair is a safe, effective procedure with significant benefits in both cost and postoperative discomfort over intravesical megaureter repairs with significant advantages over intravesical techniques. An excellent response was defined as ≤ 2 wet nights/2 weeks and an acceptable response was ≥ 50% reduction in wet nights.

Results: 231 patients from 29 centers were evaluated; 149 (64%) patients completed 6 months of treatment. Eighty-seven percent (87%) of the patients were titrated to 600 mcg/day. After 2 weeks of treatment with 200 mcg/day, a 30% mean reduction in wet nights was noted. An acceptable response was present in 31% of patients. Complete dryness was present in 8% of the children. After 6 months of treatment, patients receiving the highest DDAVP dose showed a mean reduction of 6 wet nights. An excellent response was noted in 58 patients (47%), of which 15% were completely dry. An acceptable response was seen in 73% of patients. Of 20 patients on lower dosage, 95% had an excellent response. At all dosages, 19% were completely dry.

Conclusion: Oral DDAVP at daily dosages up to 600 mcg/day for 6 months reduced the number of wet nights and was well tolerated in patients with PNE. This study was funded by an educational grant from Rhône Poulenc Rorer.

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PSYCHOSOCIAL IMPACT AND PERCEIVED STRESS OF NOCTURNAL ENURESIS

NM van Tijen, AP Messer, Z Namdar (Wilhelmina Children's Hospital Utrecht, the Netherlands)

Background: Nocturnal Enuresis (NE) has been highlighted as the most prevalent ailment of childhood and from a strictly medical point of view considered to be a self-limiting disease, with no major health risks. Nevertheless, little research has been devoted to the psychosocial impact of NE. The present study focussed upon patients' own rating of NE in relation to critical life events and its psychosocial implications on social impediment, self-esteem and coping mechanisms, compared to a reference group.

Methods: 98 NE children (≥6 wet nights/14 days) and 124 controls (age 8–18 years) entered this questionnaire-based study, subdivided into two groups: primary school children (8–12 year; mean: 10.2) and adolescents (12–18 year; mean: 13.5). The following questionnaires and methods of analysis were used: a. critical life event: Critical Life Events Picture Test (CLEFT), specifically designed to evaluate the child's impact rating of NE in relation to other critical life events, adopted from previous studies. Based on five criteria, eleven severe events were selected: divorce, stringent parental fights, being teased, being left out of the group, moving, undergoing surgery, academic retention, having little money to spend, being extremely short and having to wear glasses. Differences in perceptions were evaluated by Thurstone's method of paired comparison (mean ratings of 'severity of psychological impact' (MRS) indicating how often an event is chosen above an