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### Glenn-Anderson ureteral advancement: Ureteroneocystostomy compared to Cohen cross trigonal ureteral reimplantation in children at two separate institutes

**Introduction:** Historically the Cohen technique has been considered the “gold” standard in the open surgical management of VUR. This technique has the inherent end result of placing the ureteric orifice across the midline of the trigon and theoretically making future access to the ureteric orifice possibly more difficult than if they remained lateralized. The Glenn-Anderson technique does not require contralateral placement of the ureteric orifice thus likely not complicating future UO access. We compared both techniques in pediatric age group at two separate institutes to assess the feasibility and short-term outcomes.

**Methodology:** Between April 2014 and April 2015, 90 consecutive cases of ureteral reimplantation performed for VUR were retrospectively analyzed in two different hospitals. Surgical complications, length of stay and short-term outcomes were evaluated in an attempt to assess the equivalence or superiority of either procedure. Forty-five cases (75 ureters) group (A) from Queen Rania Children Hospital, King Hussein Medical Center, Amman-Jordan, managed by Cohen procedure. Forty-five cases, (65 ureters), group (B) from Rocky Mountain Children Hospital at Presbyterian St. Luke's Medical Center, Colorado. All patient had single system ureter without complex anatomies such as ureterocele, duplex collecting systems, or megaureters.

**Results:** Surgical indication in all patients was VUR and VUJ obstruction. All patients in group A were discharged on day 4 to 5 post-operatively while patients in group B were discharged at second-day post-op. Patients age was ranged between 8 months and 10 years while body weight ranged from 9 to 38 Kilograms. All patients in group A had local anesthetic incisional wound infiltration compared to group B who received caudal block and bladder neck and trigonal local anesthesia in addition to the incisional block. Five patients in group A developed urine retention while none in B. Four patients in group A had no resolution but downgrading of their VUR. No patient to date has required further surgical intervention.

**Conclusion:** Glenn-Anderson procedure is a feasible and equivalent technique to Cohen cross-trigonal -ureteral reimplantation. Glenn-Anderson technique theoretically as a result of a more orthotropic ureteric orifice placement should allow for easier ureteral access in patients that developed urolithiasis requiring retrograde ureteral access. Length of stay as a measure of postoperative convalescence was superior in the GA technique with all patients being discharged the day after surgery. Perhaps the adjunct local wound infiltration into the bladder neck and trigone played a major role in the ability for earlier discharge? It is not unreasonable to consider this technique as equivalent and potentially superior to others for these reasons. A further prospective study looking at postoperative pain measures and long-term surgical outcomes, as well as the latent need of additional ureteral access procedure, will be necessary to confirm our initial impressions.

### Biography

Majed Sarayreh is a Consultant Pediatric Surgeon since 15 February 2012 till now. Working in one of three teams at Queen Rania Al-Abdallah Hospital for Children interesting in laparoscopic surgery performing and assisting in variety of cases such as Funduplications, uretric reimplantation, lap assisted pyeloplasty, cholecystectomy, nephrectomy, appendectomy and splenectomy in addition to neonatal surgery, tumour surgery and wide variety of general pediatric surgical conditions.

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