

## Acute Ostructive Renal Failure in Children (Literature Review with Their Own Clinical Observations)

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### Abstract

Acute postrenal renal damage in children is rare and little known to practitioners. Our research includes 12 observations in children from 7 days to 12 years. 10 of 12 patients were with suspected hemolytic-uremic syndrome, and 2 babies with regurgitation syndrome. 7 patients had hypazotemia, and 5 experienced moderate increase in azotemia. The cause of the postrenal acute renal damage (ARD) in most children (10/12) was acute dismetabolic disorders against intoxication, hypovolemia, hyperthermia with obstruction of the urinary tract at the distal ureter level (8/12) or pelvioureteral articulation (2/12). In 1 case in 3-month-old baby ARD developed against nephrocandidosis, obstruction of the collecting system of kidneys by fungal masses. An-other patient a 7-day-old girl developed ARD against infravesical obstruction with presacral cystic involvement (Currarino syndrome). In all cases ultrasound helped to diagnose the cause of ARD. Echographically the majority of patients (9/12) had a moderate increase in kidney size, an echogenicity increase of the unexhausted parenchyma, a moderate calices-pelvis system di-latation, and a presence of echodense inclusions in the urinary tract. A Doppler ultrasound test of renal blood flow showed that relative safety of the intracranial vascular pattern, a moderate increase in the resistive characteristics of arterial renal blood flow and an increase in the rate of venous outflow were typical. We could rapidly provide adequate urine outflow (with a urethral catheter, ureter stenting, nephrostomy) and it allowed to normalize azotemia and to restore diu-resis within 1–1,5 days in all cases. 2 children needed short-term renal replacement. All the children recovered.

**Key words:** Acute Postrenal Renal Damage, Children, Ultrasound Diagnostics.

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