



## Analysis of Management of Impacted Urethral Stone in Children

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### ABSTRACT

**Introduction:** Urolithiasis is still intriguing due to its mysterious and complex nature, although being known to mankind from before the Christian era.

**Objectives:** The main objective of the study is to analyse the management of impacted urethral stone in children.

**Material and methods:** This cross sectional study was conducted in Foundation University Islamabad during 2020 to 2021. The data were collected from 100 patients. The age range was 1 month to 5 years. The definite history of the multitude of patients were accumulated and 24 hour urine test was gathered from every patient and sent for PH, explicit gravity, Creatinine, uric corrosive, calcium, phosphate, oxalate, citrate and magnesium.

**Results:** The data were collected from 100 patients with the mean age  $38 \pm 9.01$  months. There were 35 male and 65 female patients who were selected this investigation. The primary introducing grievance was amble torment on the influenced side for example in 79.0% patients, trailed by hematuria and consuming micturation.

**Conclusions:** Urethral stone is an important cause of acute retention of urine in children. Anterior urethra is more frequent site of obstruction.

**KEYWORDS:** Management, Stone, Urethral

### INTRODUCTION

Urolithiasis is as yet interesting because of its secretive and complex nature, in spite of the fact that being in the world from before the Christian time. Urolithiasis presents in all age bunches including youngsters from the neonatal period ahead and may even be gotten on pre-birth ultrasound [1]. Aside from a high predominance of pediatric urolithiasis in endemic regions, there is a rising rate everywhere. Inside the pediatric age bunch, clinical introductions are fluctuated, and assessment, including imaging, and the board must be adjusted relying upon whether they are babies, preschool kids, or pre-or post-pubertal youngsters [3].

Pediatric patients convey a high likelihood of repeat, and in this way, every work ought to be made to forestall stone repeat by guaranteeing total stone freedom. This is a more noteworthy test with negligibly obtrusive medical procedure (MIS) and limits the relevance of extracorporeal lithotripsy. Risk factors should be distinguished, and these might be physical or metabolic, which require assessment by dietary, urinary, and stone creation investigations [4].

Intense urinary maintenance is ordinarily experienced in urological practice in grown-ups, for the most part from prostatic pathologies. In the male youngster, lower urinary parcel side effects are generally auxiliary to inherent uropathy, most frequently back urethral valves, and now and again neurogenic bladders from spinal dysraphism. Urinary stones can be a snag to the typical progression of pee at any level of the lower urinary plot. In Europe, the predominance of urolithiasis shifts from 5 to 9% [5]. It is multiple times more uncommon in kids than in grown-ups [2]. Urolithiasis pervasiveness fluctuates from 7 to 13% in North America; in Asia its commonness differs from 1 to 5%.

All things considered, all stones are treated by open a medical procedure. Presently, with the approach of MIS, most of the stones are overseen by MIS using extracorporeal shockwave lithotripsy (ESWL), percutaneous nephrolithotomy (PCNL), and ureteroscopy/retrograde intrarenal medical procedure (URS/RIRS) [6]. Undertaking MIS in little kids is testing, which somewhat has been overwhelmed by progress in innovation by the improvement of scaled down instruments, which are alluded to fittingly as Miniperc or Microperc [7].



## OBJECTIVES

The main objective of the study is to analyse the management of impacted urethral stone in children.

## MATERIAL AND METHODS

This cross sectional study was conducted in Foundation University Islamabad during 2020 to 2021. The data were collected from 100 patients. The age range was 1 month to 5 years. The definite history of the multitude of patients were accumulated and 24 hour urine test was gathered from every patient and sent for PH, explicit gravity, Creatinine, uric corrosive, calcium, phosphate, oxalate, citrate and magnesium. The serum levels of metabolic boundaries were estimated by standard compound methodology. All patients at that point had authoritative technique after consummation of all workup and stones were shipped off pathology research facility for compound examination to think about the stone structure.

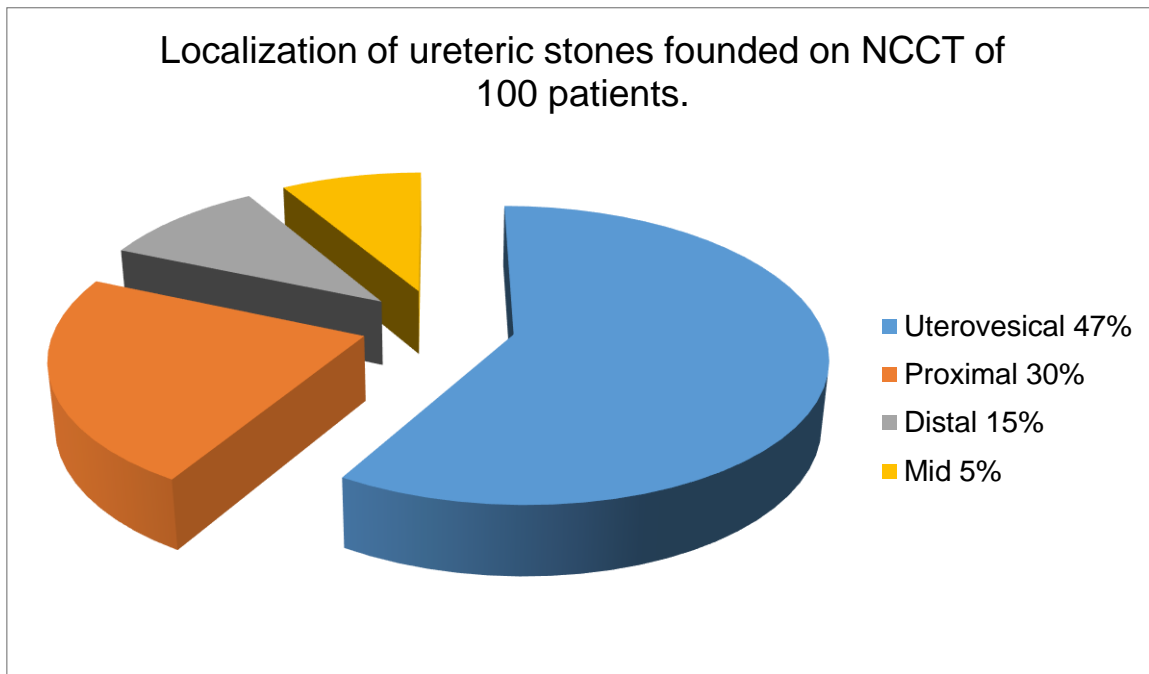
The data were collected and analyzed through SPSS (Version 21.0). All the values were expressed in mean and standard deviation.

## RESULTS

The data were collected from 100 patients with the mean age  $38 \pm 9.01$  months. There were 35 male and 65 female patients who were selected this investigation. The primary introducing grievance was amble torment on the influenced side for example in 79.0% patients, trailed by hematuria and consuming micturation.

**Table 01:** Descriptive statistics for different variables

Features	%age
Presenting Complaint:	
<ul style="list-style-type: none"><li>Lumber pain</li><li>Hematuria</li><li>Burning micturation</li></ul>	79.0 13.0 8.0
Diagnosis:	
<ul style="list-style-type: none"><li>Renal stone</li><li>Ureteric stone</li><li>Renal + Ureteric stone</li><li>Urinary bladder stone</li></ul>	63.0 21.0 10.06.0
Recurrent stone:	
<ul style="list-style-type: none"><li>Yes</li><li>No</li></ul>	38.0 62.0
Family history of Urolithiasis:	
<ul style="list-style-type: none"><li>Yes</li><li>No</li></ul>	64.0 36.0
Stone composition on Stone analysis:	
<ul style="list-style-type: none"><li>Calcium oxalate</li><li>Calcium phosphate</li><li>Uric acid</li><li>Struvite</li><li>Cystine</li></ul>	82.5 2.5 11.5 1.5 2.0



## DISCUSSION

Ultrasound has numerous helpful elements as an imaging strategy. It is reasonable, doesn't open the patient to ionizing radiation and can be performed at the patient's bedside [8]. Sadly, the responsiveness of US is profoundly factor for assessing patients with intense renal colic and relies upon stone size, analyst experience and patient circumstances. Observed that US is an unfortunate method for showing stones less than 4.0 mm [9]. One of the fundamental disservices of US is that the distinguishing proof of a stone inside the ureter is much of the time impeded by the patient's body habitus or by darkening of segments of the ureter because of overlying gut gas.

The best quality level methodology utilized for recognizing renal stone is NCCT, though US is famously utilized as the principal examination and it can go with significant choices concerning the renal stone finding [10]. A new report recommends that US is of restricted esteem in the finding of urinary stone, especially renal stone. In this review, in accordance with the writing reports, sonography was less touchy than NCCT in at first identifying stones when situated in the mid or distal piece of the ureter and this might be because of lack of clarity by the inside gas [11].

Fowler et al, in a review study, recognized renal stones with an awareness of 24% and particularity of 90% inside a time frame days, and US distinguished just 24 out of 101 stones identified by NCCT. Thought about US and NCCT for recognition of ureteric stone in 147 patients, yielding a responsiveness of 97.27% and explicitness of 83% [12].

## CONCLUSION

Urethral stone is a significant reason for intense maintenance of pee in youngsters. Foremost urethra is more incessant site of deterrent. Various techniques are accessible to radiologists for assessing patients with intense renal colic, yet noncontrast helical CT has predominantly turned into the symptomatic strategy for decision.

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