

## INTRODUCTION

The incidence of urinary stones in renal transplant recipients ranges from 0.2% to 1.8% in reported series. Despite its low incidence, renal stones may be associated with serious clinical conditions such as sepsis or graft failure in cases of stone migration and urinary obstruction.

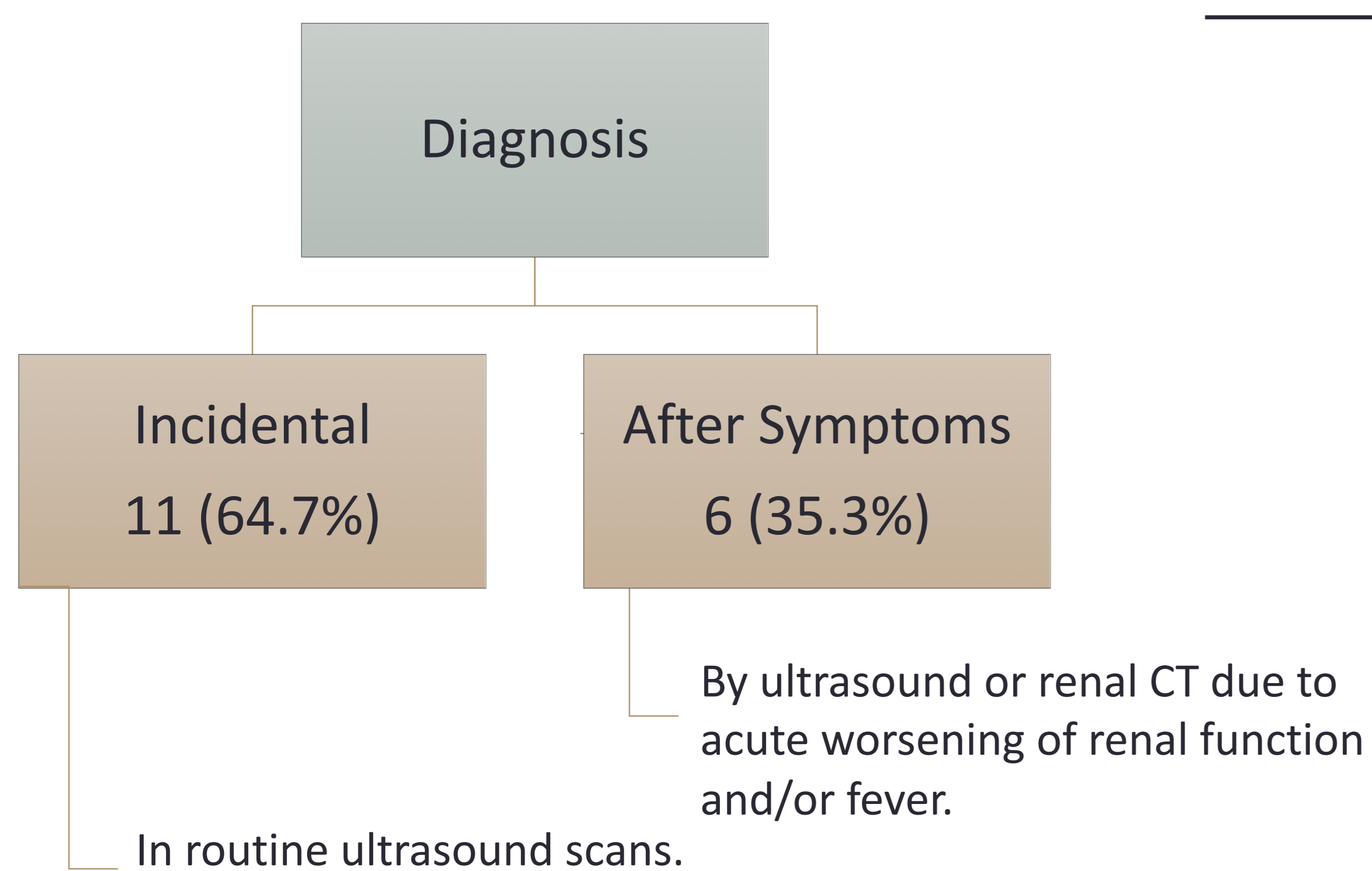
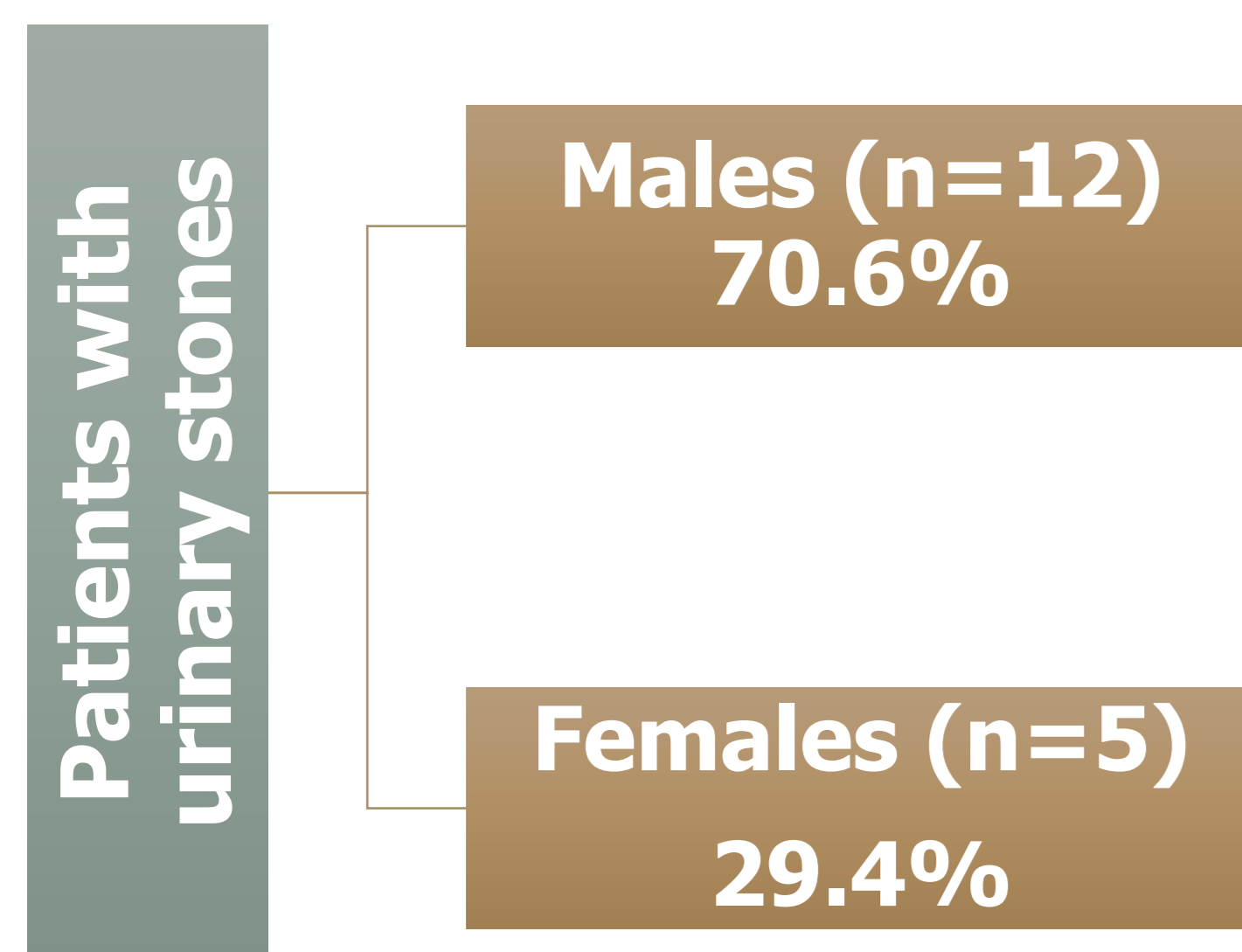
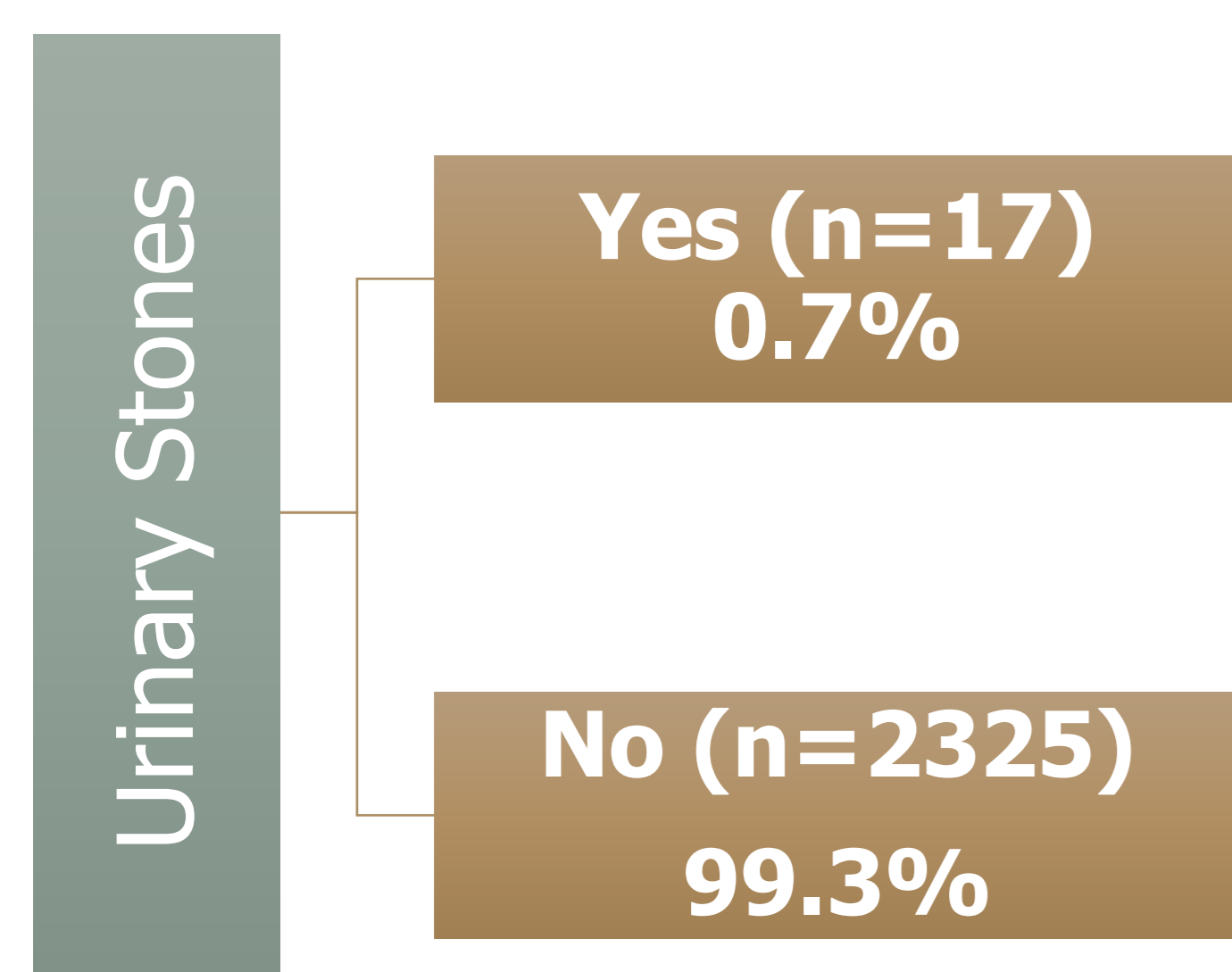
## OBJECTIVES

Evaluate the incidence, diagnosis and management of urolithiasis in renal transplant recipients at our urology and renal transplantation department.

## PATIENTS AND METHODS

We retrospectively reviewed the clinical data of 2342 renal transplants performed between 1997 and 2017. The diagnosis of urinary stones was based in ultrasound or computed tomography findings. We analyzed data by the prevalence per decade and long-term followup (urinary stenosis, time to presentation, size, site, treatment type, renal function and survival).

## RESULTS



- Ages ranged from 22 to 71 years (mean 48,8 years)
- All patients received **cadaveric** donor kidneys
- The size of the calculi ranged from **3 to 25 mm** (median 8 mm).
- Six patients were initially treated with urinary diversion (5 patients with percutaneous nephrostomy and 1 patients with ureteral stent).

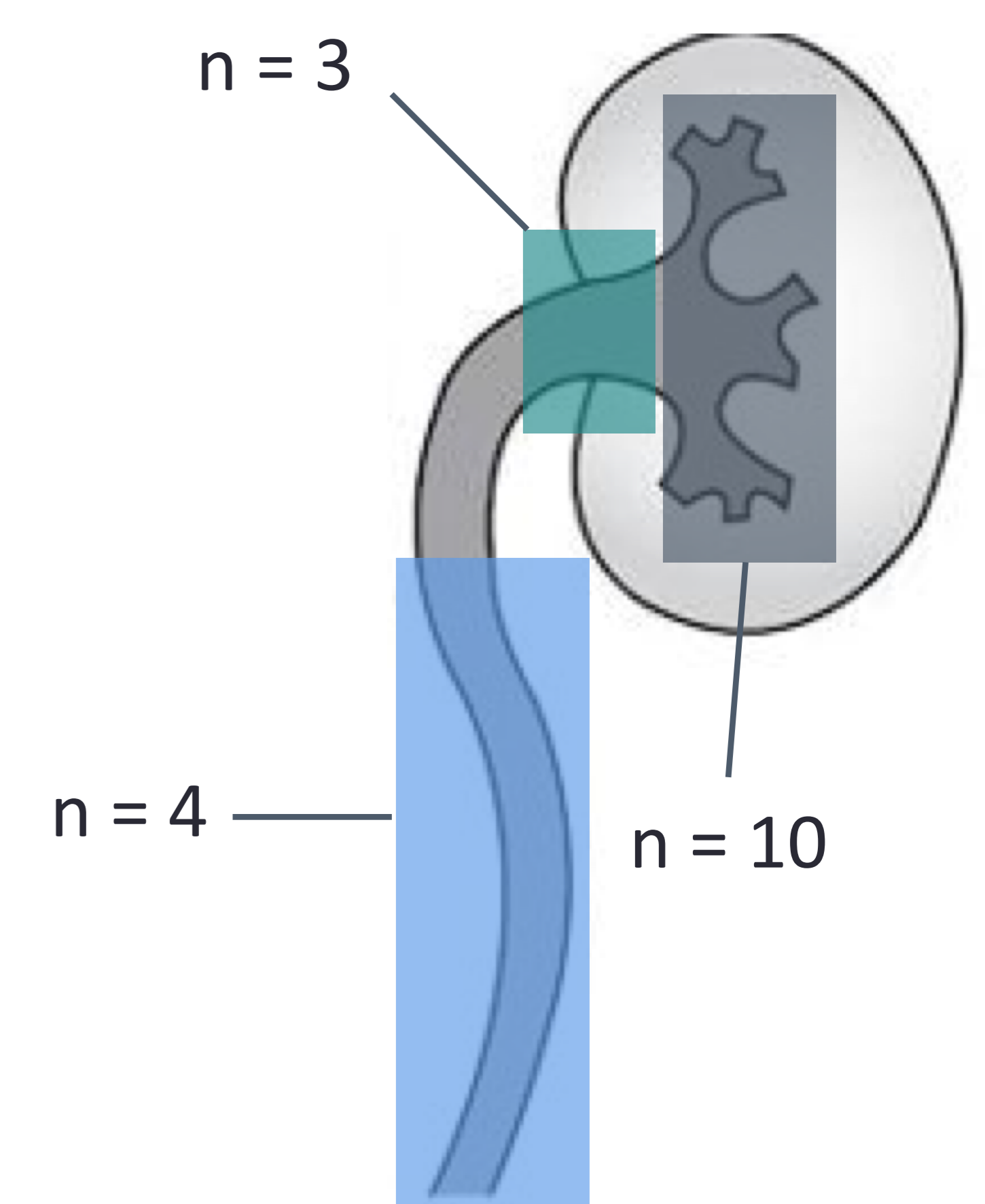


Table 1. Management of Lithiasis

No. of Patients (n= 17)	Adopted management
08	Surveillance
04	Extracorporeal Shock Wave Lithotripsy
03	Ureteroscopic Treatment
01	Percutaneous Nephrolithotripsy
01	Open Pyelolithotomy

- During follow-up, we identified recurrence of lithiasis in 2 renal transplant recipients (all stones < 5 mm). Both patients were treated conservatively.
- There were no complications with the procedures.
- Five patients (29,4%) had graft loss after diagnosis of lithiasis.
- The presence of stones was not associated with loss of renal graft function ( $p>0.05$ ).
- We did not find any association between the age and weight of the recipient or donor and the development of urinary lithiasis ( $p>0.05$ ).

## DISCUSSION/CONCLUSION

Urinary lithiasis is a rare complication in renal transplant recipients. The diagnosis and treatment options for these patients are similar to those used in general population. Most cases of urinary lithiasis in these patients are done through routine imaging tests.