



# Success Rate of Ureteral Access Sheath Insertion **During Primary Retrograde Intrarenal Surgery -A Retrospective Cohort Analysis**

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### **OBJECTIVES**

Ureteral access sheath (UAS) has definite advantage during Retrograde Intrarenal Surgery (RIRS) but cannot be deployed in all cases at first instance. We retrospectively analysed the success rate of UAS insertion during primary RIRS.

## METHODS

- All procedures with RIRS code performed in Singapore General Hospital in 2016 were screened.
- Only primary RIRS performed for renal/PUJ stones (with no prior instrumentation) were included in the final analysis. All secondary procedure and treatment/surveillance for upper tract tumors were excluded.
- \* Insertion rate and factors affecting UAS insertion were studied using Chi square and binary logistic regression analysis. SingHealth IRB (Ref: 2019/2156) approved this study.



138 cases were screened and 73 met inclusion criteria.

- •Mean age was  $54.5 \pm$ 13.1 years.
- Mean operative time was  $81.4 \pm 34.1$  min.

The success rate of UAS insertion during primary RIRS was 63% (46/73), of which 93.5% (43/46) used 11/13F UAS, 4.3% (2/46) used 10/12F and 2.2% (1/46) used 9/11F.

Those who failed UAS insertion, 77.8% (21/27) were stented with 6F double-J. 22.2% (6/27) were stented with 7F double-J.

Stone free rate in primary successful insertion group were 52% (24/46) while it was 44% (12/27) in the No preoperative factors (age, gender, race, BMI, stone location, and stone number) were associated with increased rate of successful insertion of UAS in logistic regression analysis



#### **CONCLUSION**

The success rate of UAS insertion during primary RIRS was 63% in this cohort. Our efforts to increase this rate (e.g. preoperative tamsulosin) in randomized controlled trials are awaited.