Post-Flexible ureteroscopy using Access sheath – Do we really need to leave a stent? A retrospective pilot study

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Introduction

Double J ureteric stents are commonly inserted following flexible ureteroscopy (fURS). We describe a practice of not doing so following ureteral access sheath use in fURS in certain patient cohorts. Our aim is to evaluate its outcomes and safety in order to prevent post-operative stent symptoms, pain, infections and need for further procedures.

Methods

A retrospective analysis of 18 patients who had fURS with access sheath use between October 2024 and June 2025 was performed. We analysed patient demographics, stone burden, biochemical markers, operative time, pre-stenting and post-operative complications. Inclusion criteria included normal inflammatory markers and negative urine cultures. Exclusion criteria was visible ureter irritation intra-operatively. Patients were subsequently contacted for qualitative analysis of post-operative pain, LUTS and satisfaction.

Results

6 females and 12 males with a mean age of 54.3 years old. 14 used suction, 2 basketing half on the right, half on the left. The average operating time was 42.5mins and 15 patients were pre-stented for an average of 13.7 weeks. 10 had a single stone with an average stone size of 7.5mm. pre-operatively, the average WCC was 6.9, CRP 2.1, eGFR 68.3. The average post-operative eGFR was 57.7.

1 patient presented 4 days post-operatively with flank pain, hydronephrosis, no residual stones requiring an emergency stent for 4 weeks.

The average pain severity post-op was 2.8/10, LUTS 5/10 and patient satisfaction was 7.25/10. The majority of feedback from patients was that they were happy to not have a further stent, reducing stent symptoms and need for further intervention.

Conclusion

In selective patient cohorts, not inserting a stent following fURS and access sheath use can be safe and leads to better patient satisfaction and a reduced need for further intervention. Riskier patients should be avoided with previous significant infections; not pre-stented and multiple stone burden.

Clearing the ureteroscopy backlog fast: A targeted strategy using waiting list validation and a high intensity “Ureteroscopy Booster Week”

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Introduction

Ureteroscopy waiting lists in the NHS continue to grow, presenting significant challenges in achieving timely treatment, driven by high demand, shortage of appropriately skilled staff, and limited theatre capacity. Untreated persistent ureteric stones can lead to loss of renal function, and prolonged ureteric stent dwell times are a source of serious morbidity. As such, prolonged waiting times can put patients at risk of adverse outcomes. This quality improvement project aimed to reduce the ureteroscopy waiting list at two local hospitals.

Methods

The waiting list was initially validated by a team of four urologists and a urology stone specialist nurse, who screened patients based on the indication for ureteroscopy, the date of stent insertion (if applicable), and the most recent imaging results. Patients requiring updated imaging underwent repeat CT-KUB scans. Those who declined treatment, had been treated elsewhere, or no longer required ureteroscopy were removed from the list. Following this, a ‘ureteroscopy booster week’ was implemented, with two parallel high intensity theatre lists running daily over five consecutive days. Patients were scheduled according to clinical priority. The primary outcome measure was the change in the size of the waiting list.

Results

At extraction in November 2024, the baseline waiting list included 339 patients. Validation reduced the list by 50.4%. During the ‘booster week,’ the list decreased by an additional 21.4%, with 59 ureteroscopy procedures performed across 10 lists. The final waiting list was reduced to 123 patients.

Conclusions

The validation process and focused ‘booster week’ significantly reduced the ureteroscopy waiting list. This model is scalable, resource-conscious, and can be replicated across other NHS trusts to mitigate surgical backlogs in endourology.

Through the Scope: An 18-Month Audit of URS Accuracy and Impact in UTUC Diagnosis

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Introduction and Methods

Upper tract urothelial carcinoma (UTUC) accounts for 5–10% of urothelial malignancies and is frequently diagnosed at a muscle-invasive stage. Diagnostic ureteroscopy (URS) allows direct visualisation and biopsy of suspicious lesions, supporting kidney-sparing strategies. However, it carries risks of tumour seeding, treatment delays, and bladder recurrence. The IDUNC audit highlighted concerns over URS potentially prolonging time to definitive treatment without significantly impacting outcomes.
This single-centre retrospective audit reviewed all diagnostic URS procedures for suspected UTUC over 18 months, evaluating diagnostic accuracy and compliance with EAU guidelines. Data captured included demographics, imaging, cytology, URS and histology findings, and MDT discussion status.

Results and Discussion

Seventy-five cases were analysed (mean age 72.8; M:F ratio 2:1). Pre-URS multidisciplinary review occurred in only 49%. URS demonstrated strong diagnostic accuracy (OR 57.8, $p<0.05$), with 81.3% of visually suspicious lesions confirmed malignant on histology. Histology revealed 29 positive cases (24 high-grade, 5 low-grade). Ureteric washings for cytology were sent in only 34% of cases; while positive results were associated with high-grade disease (80.0%, $p = 0.57$), overall sensitivity remained low (45.5%).

Visible haematuria, male sex, older age, and solid enhancing CTU lesions were significant predictors of malignancy. The average time from referral to treatment decision post-URS was 90 days. Median imaging-to-nephroureterectomy interval was 157 days, longer than the 130-day benchmark seen in IDUNC. Complication rates were low (4%).

Conclusion

Diagnostic URS retains value but should be reserved for well-selected cases. This audit advocates a structured, multimodal diagnostic pathway integrating clinical presentation, imaging, cytology, and risk stratification. Emphasis on pre-URS MDT review and refined selection criteria, aligned with IDUNC recommendations, may reduce unnecessary delays and enhance patient outcomes.

Improving fluid management: What does it mean for laser power?

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Introduction and Objectives

In lasertripsy, high power laser usage is limited by thermal injury risks. But temperature rise may be mitigated by higher flow rates. This bench study compares temperature increase during laser activation when using a concept Fluid Management System (concept FMS; Boston Scientific, BSC) vs a pressure bag.

Methods

A 9.5Fr LithoVueTM Elite (BSC) Ureteroscope was placed, within an 11/13Fr ureteral access sheath (NavigatorTM HD, BSC) into a calyx of a benchtop model. Room-temperature irrigation was provided by two methods. A 3L bag with pressure cuff or a concept FMS both pressurized to 200mmHg.

After leaving the irrigation methods running for 10 minutes, a 200µm laser-fibre (MOSES™ 200 D/F/L, BSC) was fired in the center of the calyx at 20, 40 or 60 Watts for 90 seconds. Live irrigation pressure, flow rate, intra-calyceal pressures and temperatures were recorded in a benchtop model.

Both arms were repeated 5 times with different equipment.

Results

The irrigation bag pressure lost pressurization without manual manipulation over 10 minutes which decreased flow (fig 1). After 10 minutes at the start of lasing, the mean pressure-bag flow rate was at 29 mL/min compared with the concept FMS at 46 mL/min.

Firing a laser for 90 seconds resulted in the following temperature increases at 20W, 40W or 60W respectively:

20W:
Pressure bag: 7.4oC
Concept-FMS: 6.2oC

40W:
Pressure bag: 12.3oC
Concept-FMS: 9.8oC

60W:
Pressure bag :16.4oC
Concept-FMS:11.9oC

Conclusions

Irrigation bag pressures decrease rapidly with a consequent 35% reduction in flow rates within ten minutes of pressurization. Flow rates, whilst using an FMS, remained relatively stable within each test. In this bench model, these higher flow rates with concept-FMS mitigated the temperature increase of firing a laser compared to using a pressure bag.

How Long Can We Operate? Evaluating the Safety of Extended Operative Time in FURS Using Flexible and Navigable Suction Access Sheaths (FANS)

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Abstract

Objective

To assess the factors influencing operative time (OT) during flexible ureteroscopy (FURS) using a Flexible and Navigable Suction Access Sheath (FANS), and to evaluate whether longer OTs are associated with worse clinical outcomes.

Methods

This prospective multicentre study included 556 adult patients undergoing FURS with FANS across 25 centres (Aug 2023–Jan 2024). Patients were divided into three OT groups: <60 min (Group 1), 60–89 min (Group 2), and ≥90 min (Group 3). Multivariable regression identified predictors of prolonged OT, and outcomes including complications, stone-free rate (SFR), and hospital stay were compared.

Results

Longer OTs were associated with larger stone volumes, lower pole or multiple stone locations, absence of pre-stenting, use of smaller sheaths (10/12 Fr), and low-power Ho:YAG lasers ($p<0.05$). TFL and high-power Ho:YAG lasers significantly reduced OT. Despite longer procedures, there was no significant rise in postoperative fever or sepsis (Group 1: 1.7%, Group 2: 2.1%, Group 3: 2.0%). However, SFR was lower in longer OT (Group 1: 96.9%, Group 2: 93.5%, Group 3: 82.4%, $p<0.001$), and fewer same-day discharges were observed in longer OT groups.

Conclusion

In FURS using FANS, longer OTs are mainly driven by stone complexity and procedural factors. Importantly, extended operative times did not increase infectious complications. These findings challenge the traditional 90-minute OT limit, suggesting that longer surgeries may be safe and feasible with FANS. Prospective studies are needed to define new thresholds and discharge protocols in this context.

Does the Innovative Single Pigtail JFil® Stent Improve Patient's Tolerability? A Pilot Study

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Introduction

Ureteric stent-related symptoms represent a major issue and impair the patients' quality of life. To minimise stent-related symptoms, a newly single pigtail suture stent was developed, where the distal part of the stent is a 0.3 Fr suture that terminates in the bladder. We aimed to compare the single pigtail suture stent (JFil®, Rocamed) with the conventional double-J stent in relation to stent-related symptoms.

Methodology

The inclusion criteria were patients with pelvi-ureteric junction obstruction or benign upper ureteric strictures, who were managed with long-term stents and complained strongly of stent symptoms. Patient with urinary stones or strictures were excluded from the study. Seven women with a median age of 64 +/- 24 years were included and underwent replacement of their long-term double-J stents with JFil stents measuring 7.0 Fr in diameter and 8 or 16 cm in specified length. All patients completed the ureteral stent symptoms questionnaire (USSQ) prior to replacement (baseline) and day 90 post-replacement. We followed these patients over the next 12 months and compared the means of each USSQ domain between the two stent types.

Results

The urinary symptom index score (37.5 vs 24.4, P=0.019), body pain index score (21.1 vs 8.4, P=0.04) and general health index score (18.2 vs 9.6, P = 0.014) were significantly in favour of JFil pigtail-suture stent. No difficulty in the placement of JFil stent was encountered. No stent failure and no calcification were observed 12 months after stenting. Stent suture migration to the ureter occurred in one patient and required a ureteroscopy to exchange the stent.

Conclusions

JFil stent is a potentially beneficial option to minimise stent-related symptoms. We are planning to conduct a multi-centre study to shed more insight on symptoms response to this stent design.