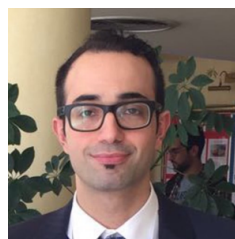




West Midlands Endourology Meeting

ABSTRACTS **March 29, 2019**

"It's my absolute pleasure as editor in chief of The Journal of Endoluminal Endourology to announce this special edition of the journal. The West Midlands Endourology Meeting is a prestigious event, with excellent academic content and it is our pleasure to publish the seven best abstracts in this special edition."



Wasim Mahmalji, MBBS,
BSc, MSc, MRCS, FRCS

Outcome of Flexible Ureterorenoscopic Lasertripsy in the Treatment of Staghorn Stones

Mussammet Ahmed and Vincent Koo
Alexandra Hospital Redditch, West Midlands

Introduction

Percutaneous nephrolithotomy (PCNL) is a well-established treatment for staghorn stones. With improvement in technology and techniques of flexible ureterorenoscopic lasertripsy (FURS), it is increasingly used to primarily treat large stones including staghorn stones.

Materials and Methods

All patients with partial and complete staghorn stones treated by FURS by a single endourologist were included. Outcome measures compared included duration of procedure, length of stay, retreatment rate, complications and clinical success rates.

Results

Out of 18 staghorns, 6 complete and 12 partial staghorn stone had FURS treatment. Comparatively, the Complete staghorn group were older (mean 73.6 vs. 69.6 years), had larger maximum stone size (mean 48.3mm vs. 26.4mm), lower pre-op stenting (0% vs 8.3%) with similar BMI (mean 31.7 vs. 30.5), ASA scores (mean 2.5 vs. 2.3), similar recurrent UTI incidence (66.7% vs 61.5%) and Hounsfield unit (mean 845 vs. 817HU). MAP stone composition was found 50% of complete staghorn vs 16.7% of partial staghorn group.

Complete staghorn group took longer total operatively to clinical success (mean 189 mins vs. 85.9 mins), lower primary procedure success (66.7% vs. 83.3%), higher number of repeat procedure (mean 1.67 vs 1.27); with similar hospital stay (mean 1.16d vs. 1.25d). The complete stone-free rate after 6 months was lower in Complete Staghorn group (83.3% vs 91.7%); where 1 patient of each group had small remnant staghorn aspect inaccessible to laser. There were no complications on the Complete Staghorn group and one patient with Partial staghorn developed postop fever (Clavien 2) settled with antibiotics.

Conclusion

FURS is efficacious and safe for primary treatment of staghorn.

Emergency Primary Ureteroscopy - Importance in Present NHS Practice

M Ahmed, S Ndirika, Jenny Bo and Mr A. Dhanasekaran
Sandwell and West Birmingham NHS Trust

Objectives

Emergency primary ureteroscopy is defined as patients undergoing ureteroscopy when presented with acute ureteric colic instead of double J stenting and/or delayed elective ureteroscopy. In this study, we analysed the outcomes of emergency primary ureteroscopy (URS) versus emergency stent insertion for acute ureteric colic patients at Sandwell and West Birmingham NHS Trust (SWBH).

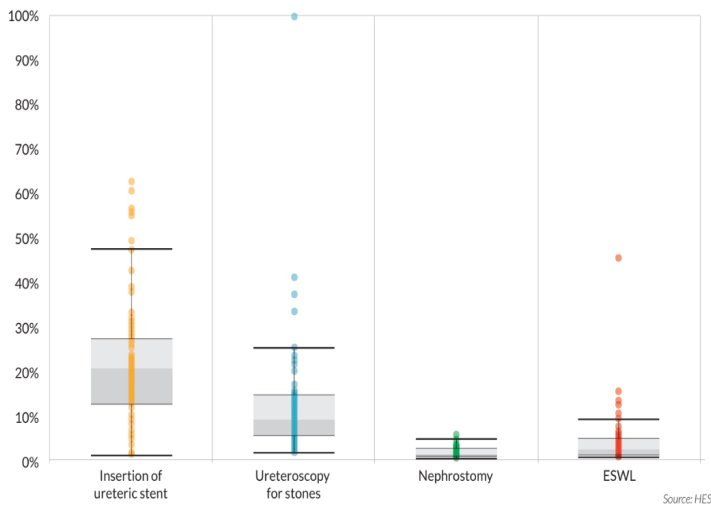
Materials and Methods

A retrospective review of all ureteroscopy and stent insertion surgeries performed at SWBH from June 2018 to December 2018. In total 105 surgeries were identified: 33 cases were excluded due to the non-stone indications and 72 consecutive cases identified in emergency URS, emergency stent and delayed elective URS groups. Data on patient demographics, stone and procedure details were collected and analysed.

Results

In total 105 cases were identified from theatre codes when searched for emergency, ureteroscopy, laser fragmentation and ureteric stent. Retrospectively, 24 consecutive cases identified in each of the groups: emergency URS versus emergency double J stenting versus elective delayed URS. Overall, men were 3 times more likely to need stone treatment. Stones were of similar size across the groups (7-8mm) with 78% stone clearance in emergency URS versus 88% in elective setting and 33% versus 67% proximal ureteric stones noted in the respective groups. In emergency URS, 30% complication noted (4 grade 1 ureteric injuries, 1 stent symptom, 1 orchitis). All cases were stented followed by removal in 3-4 weeks. In the elective setting, 6 were pre-stented, 62.5% stented post-op and complications were lower or poorly documented. 17/24 had primary URS and 25% needed flexible URS. For patients undergoing emergency stent insertion all needed further procedures (1PCNL, 22URS, 1 awaiting URS), 13% complication and an average waiting time of 8 weeks to definitive treatment. Overall, lower inpatient stay and the absence of additional admission in the emergency URS group imply greater financial savings to the overstretched NHS. Full economic details will be presented.

Figure 11: Selected procedures, proportion undertaken during non-elective admissions under the care of a urologist for patients with urinary tract stones, by trust, 2016



Conclusion

Our results show that emergency URS is safely feasible with the added benefit of offering earlier stone clearance, less pressure on the elective operating waiting list and greater financial savings for the NHS. These findings are also reflected in Urology GRIFT recommendations.

An Innovative Patient-Centred Approach in the Management of Painful Bladder Syndrome Improves Outcomes and Quality of Life

MO Kitchen^{1,2}, K Willard^{1,3}, H Thursby^{1,2}, W Asaad¹, M Taylor^{1,3}, T Harrison^{1,3}, M Bould^{1,3}, L Gommersall^{1,2}

¹Department of Urology, University Hospitals of North Midlands NHS Trust, UK.

²Institute for Science and Technology in Medicine, Keele University, UK.

³Nurse-led Urology Ambulatory Unit, Royal Stoke Hospital, UK

Introduction

Bladder pain syndrome (BPS) symptoms can be difficult to manage. Subsequent to investigations

excluding underlying pathology, patients wait for extended periods for outpatient clinics and treatment, often with significant symptoms and reduced quality of life. The introduction of our nurse-led service has moved focus of BPS management toward patient-centred treatment and empowerment, *i.e.* from 'patient at hospital' cystistat® to 'patient at home' hyacyst®.

Patients and Methods

We assessed 30 patients with bladder pain syndrome symptoms from our caseload, performing self-catheterisation with self-administration of hyacyst® (at home). Patients completed standardised quality of life questionnaires prior to, during, and following establishment on treatment; these were compared to self-reported outcomes from 16 patients receiving intravesical cystistat® (in hospital).

Results

Median follow-up was 13.8 months. 25/30 patients were successfully established on as required self-administration hyacyst®, compared to 9/16 that continued on nurse-administered cystistat® (Quality of life/acceptability was better in the hyacyst® group). Mean frequency of administration was 6.8 weeks for hyacyst® and 4.2 weeks for in-hospital cystistat®. Cost per treatment averaged £70 for hyacyst® and £350 for cystistat®. Treatment wait times were 3.4 months for first cystistat® and 0.7 months for self-catheterisation teaching and hyacyst® ($p < 0.05$). Approximately 150 patient hospital visits were 'saved' by establishing patients on hyacyst® (per year).

Conclusion

Preliminary data suggest that self-administered hyacyst® is well tolerated, cheaper than standard cystistat®, has significantly shorter waiting times, and patient-reported outcomes are better. These data also suggest that self-administered treatment reduces clinician and nurse-led clinic visits, freeing slots and reducing wait times for other services such as Mitomycin/BCG.

Introducing Mini and Supine PCNL in an established PCNL Centre – What Difference Has It Made?

Shehab Khashaba
City and Sandwell Hospital

Aim

Mini PCNL is now established as a less invasive method of PCNL due to the lesser dimension of the puncture tract. Supine PCNL is proved to be advantageous due to the possibility of simultaneous

retrograde access and better positioning for airway access. Mini and Supine PCNL technique was introduced in the Sandwell and West Birmingham Hospitals Trust in 2017. Standard PCNL is performed in this trust for more than 15 years. We studied the difference in clinical outcomes due to the introduction of Mini and Supine PCNL on the management of renal stone disease.

Methods

Patient details from 344 urological procedures carried out between 2015 to 2019 at SWBH NHS Trust were accessed. The operation notes, laboratory results and radiology images of the identified patients were reviewed. Of these, retrospectively a total of 100 PCNL procedures were identified: 70 standard PCNL and 30 mini PCNL. Data were collected regarding the access to stone, completeness of stone clearance, postoperative events like the need for blood transfusion, pain tolerability, length of hospital stay and long-term outcome.

Data were analysed to determine average patient age, sex, renal function, stone size and STONE score for both standard and mini PCNL. Surgical outcomes are compared to determine whether the introduction of the Mini and Supine PCNL procedure has advantages over standard PCNL.

Results

Collected data were assessed using SPSS software. Gender and age distribution were comparable in both groups. Average stone size was smaller in the Mini PCNL group. Stone clearance was found to be better in Mini PCNL group. However, smaller stone size is a confounding factor. Mini PCNL patients stayed less than 24 hours in the hospital and most of the patients did not require nephrostomy tubes. Blood transfusion rates are less in Mini PCNL possibly due to the smaller diameter of tracts. We will present full data with charts in the presentation.

Conclusion

The Introduction of Mini and Supine PCNL resulted in better patient outcome by decreasing the hospital stay, less need for blood transfusion and intra-operative comfortable positioning of the patient.

Is Hypothermic Lignocaine Is Better Than Normothermic Lignocaine for Flexible Cystoscopy procedures? Prospective Single Blinded Randomized Study

Mr Syed Ehsanullah and Mr A Dhanasekaran
Sandwell and West Birmingham NHS Trust

Aim

We use normothermic lignocaine gel (Instillagel® Anaesthetic Antiseptic Lubricant) routinely for local anaesthesia flexible cystoscopy procedures. In the past few years, many minimally invasive procedures were introduced for Benign Prostatic Enlargement. Of these UroLift and Rezum are suitable to be performed under local anaesthesia. Using rigid cystoscopy under local anaesthesia is challenging and requires experience. Various modifications made to improve patient comfort in these procedures. Of which using hypothermic Lignocaine gel from the fridge at approximately 4° C is useful. We did a Randomized Single Blinded Study to compare patient comfort with hypothermic and normothermic lignocaine in flexible cystoscopy procedures.

Materials and Methods

Lignocaine gel we used is Instillagel® Anaesthetic Antiseptic Lubricant. Lidocaine in a gel made with Hydroxyethylcellulose, Propylene Glycol and Purified Water. The gel comes in disposable syringes each containing either 6ml or 11 mL. We used 11 mL syringes. We discussed with a statistician to calculate the number of patients required to enrol to get 80% power for the study outcome. We randomized 50 patients in two arms and used the visual analogue score to estimate patient comfort.

Results and Discussion

There are some historical studies showing heating lignocaine reduces pain during intradermal injection. Few studies showed that alkalised local anaesthetic mixture works better. No studies were available on cold lignocaine gel on cystoscopy procedures. In our study we found the patients in hypothermic lignocaine arm tolerated the procedure well. Full statistics details are presented. The disadvantages of

this study were (1) we enrolled only flexible cystoscopy patients, (2) if we enrolled a larger number of patient's it may show a better statistical difference, and (3) discomfort from flexible cystoscopy can't be compared with rigid cystoscopy.

The reason why hypothermic lignocaine from the fridge at 4°C is better is due to the pK absorption value. The lignocaine gels were kept in the fridge overnight. Further reasons why hypothermic lignocaine is efficient in mucosal anaesthesia needs further studies.

Upper Tract TCC: Audit of Diagnostic of Diagnostic Pathway.

Nathan Ingamells, William Taylor and Kesavapillai Subramonian
Queen Elizabeth Hospital Birmingham

Introduction

Upper tract urothelial carcinoma (UTUC) accounts for only 5% of urothelial cancer. BAUS audit data showed that on average six nephroureterectomies are performed per unit annually. UTUC is difficult to diagnose and has a sinister clinical course. We audited our patients to understand how to improve our diagnostic pathway.

Material and Methods

Sixty-one patients diagnosed with UTUC had definitive surgery over a ten-year period. Forty-eight were included in our analysis. Forty-two had prior ureteroscopy and 6 patients proceeded to nephroureterectomy based on the CT and cytology alone. At ureteroscopy 34 patients had a biopsy. 8 patients had ureteroscopy but biopsy wasn't possible, of these 75% were performed by non-endourologists. Thirty of 34 biopsies were sufficient for diagnosis of UTUC.

Registrars took 75% of the insufficient biopsies. Twenty-eight patients had selective ureteric cytology, of which 11 were diagnostic for TCC. 25 patients were referred via the two-week wait pathway. Median wait for haematuria appointment, ureteroscopy and definitive surgery were 21, 94 and 108 days respectively. Only one patient who had T3 disease on CT met the 62-day target.

Conclusions

Ureteroscopy can be very challenging in this cohort and we recommend that this be carried out by an endourologist following a strict protocol. Selective ureteric cytology can be useful and should be taken. Theatre slots should be kept for these patients so that there is minimal waiting time delay. Initial MDT discussion prior to ureteroscopy should recommend progression straight to definitive surgery if histology is diagnostic to avoid further MDT delays.

Racial Disparities in Uric Acid Stones: Single Centre Cohort Study

Manzoor Ahmad, Mohamed Iqbal and K.Subramonian

Queen Elizabeth Hospital Birmingham

Introduction

Common risk factors for Uric acid stones are age, high BMI, hyperuricemia, hyperuricosuria and acidic urinary pH. Little is known about the correlation of uric acid stones with different patient characteristics of various ethnic backgrounds. We aim to analyse differences in patient characteristics in uric acid stones.

Methods

Stone analysis data from 446 patients were analysed retrospectively. Patients with Uric acid stones were identified and their age, BMI, serum uric acid level and urine pH was compared amongst different patient populations using SPSS (Mann Whitney test).

Results

Calcium oxalate was the commonest stone (n=301, 67.5%) followed by uric acid (n=42, 9.4%). Comparison of different patient characteristics in the uric acid group is shown in the table.

There was statistically significant difference in Age and a trend towards lower BMI, higher uric acid level and lower pH and these didn't reach statistical significance.

Factor	Ethnic group	Median	Difference	Significance
Age	Caucasian	68	+20	.004
	Asian	48		
BMI	Caucasian	30.8	+1.8	.268
	Asian	29		
Uric acid level	Caucasian	322	-60	.621
	Asian	382		
Urine pH	Caucasian	6	+0.5	.277
	Asian	5.5		

Conclusion

Our study shows that Asians suffer from uric acid stone at a younger age and have relatively lower BMI and higher uric acid levels. This correlates with epidemiological studies of Gout from Southeast Asia suggesting that pathogenesis of Gout and Uric acid stones in Asian population is different to Caucasian population. Larger sample size is needed to confirm this along with metabolic screening and genetic evaluation for confirming the pathogenesis.