

A Prospective Study Of Individualized Homoeopathic Medical Expulsive Therapy In Uncomplicated Ureteric Calculi

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ABSTRACT

Background: Ureteric Calculi: When Concentrations Of Stone Salts In The Urine Surpass The Limit Of Metastability, Stones Develop In The System. The Common Causes Of This Are Either Low Urine Volume Leading To Overly Concentrated Urine Or Excessive Excretion Of One Or More Stone Components. There Are Five Sites Of Anatomical Constrictions In Ureters, Where The Stone May Be Halted.

1. Pelvi Ureteral Junction
2. Vesico Ureteric Junction
3. Crossing Of Iliac Artery
4. Juxtaposition Of Broad Ligament/Vas Deferens
5. Ureteral Orifice Inside The Bladder Wall

Clinical Features: Hematuria, Radiation To The Testis, And Sudden, Intense Pain That Makes It Difficult To Pass Urine Are All Signs Of Ureteric Colic. Acute Colicky Pain Is A Symptom Of Intermittent Ureteric Blockage Caused By A Stone Traveling Down The Ureter. Infection Is Indicated By Fever, Urgency, Frequency, And Strangulation Along With Ureterovesical Junction Stones. Complete Anuria And A Sharp Decline In Renal Function Can Result From Bilateral Or Single Kidney Ureteric Stones.

Ureteropelvic Stone In Upper Left- Significant Pelvic Distension And Capsular Discomfort At The Costovertebral Angle. Mid-Ureteral Stone In Upper Right- Greater Discomfort In The Lower Quadrants Of The Abdomen. Lower Left - Stones In The Lower Ureters.

Bladder Symptoms- Burning, Urgency, Frequency, Pain May Be Referred To Penis When The Stone Gets Close To The Bladder.

Methods: This Is A Non- Randomized Interventional Clinical Trial Carried Out At Bharati Vidyapeeth (Deemed To Be University) Homoeopathic College & Research Centre, Pune, In The Outpatient Department. A Total Of 32 Patients Were Analyzed. Case Definition: Cases Pre-Diagnosed /Newly Diagnosed With Ureteric Calculi Less Than Or Equal To 7mm Of Age Group 18-60 Years And Justifying All Inclusion And Exclusion Criteria Were Considered. Out Of 32 Cases, 2 Dropped Out And The Rest Completed Their Follow-Ups. Every Visit, Symptomatology And Generals Of Patient Along With Pain Status Using Vas Score Were Recorded With Study Criteria Investigations Done Before And After The Study.

Results: A Total Of Thirty-Two Cases Were Included In The Data Analysis. The Hypothesis That The Average Period For Stone Ejection Is 30 Days Was Assessed Using The T-Test Where The P-Value Is 0.672 And The Test Statistic Is $T = -0.43$. Statistical Non-Significant In This Case Is A P-Value Of Less Than 0.05. The Average Period For Stone Expulsion With Individualized Homeopathic Medications Is 30 Days, Based On Statistical Analysis Of 28 Patients. Two Participants Have Withdrawn From The Research. Despite Being Unable To Remove The Stone, Two Patients Reported That The Size Of The Stone Decreased. Descriptive Statistics And The Wilcoxon Signed-Rank Test Were Employed To Assess Pain Scores (Vas) Before And After Treatment For Ureteral Stone Management Which Revealed A Significant Reduction In Patients' Median Pain Score (Iqr) Priorly 4, Which Decreased To 2 Following Treatment. Similarly, The Mean \pm Sd Pain Score Dropped From 4.31 ± 1.03 Before Treatment To 2.28 ± 0.63 After Treatment, Indicating A Substantial Improvement In Patient-Reported Pain Levels. This Demonstrates Unequivocally That Individualized Homeopathic Medicines Can Be Used To Treat Ureteric Calculi..

Keywords: Ureteric calculi, Medical expulsive therapy, Complementary and alternative medicine, Urolithiasis...

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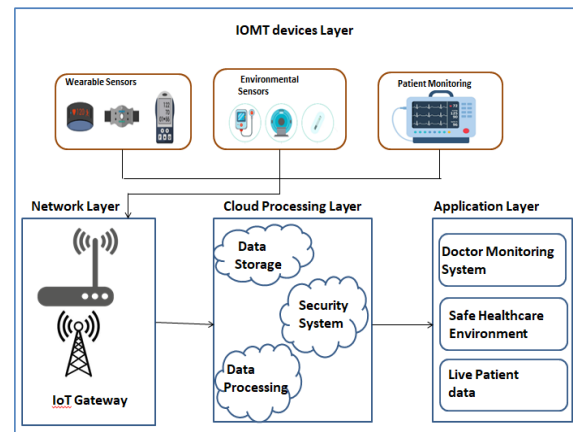
INTRODUCTION

Urolithiasis, also known as urinary stones, is the most frequent ailment, affecting roughly 10% of people globally and growing in incidence and prevalence. Ureteric calculus cannot be fully explained by theories that rely on factors like complexation¹, ionic strength, pH, supersaturated urine, and solute concentrations. It is thought to be a common cause of morbidity and the third most common urological condition²

Urolithiasis : Stones in the urinary tract occur when urinary chemistry results in concentrations of stone salts that exceeds the limit of metastability for that salt in solution. This most often reflects excessive excretion of one or more stone constituents or simply a low urine volume resulting in excessively concentrated urine³

Ureteric Colic : Sudden onset, shooting pain with difficulty in passing urine, hematuria and radiation to the testis is highly suggestive of ureteric colic Stone moving down the ureter causes intermittent ureteric obstruction; presents with acute colicky pain. Urgency, frequency, strangury occur with stone at uretero vesical junction, presence of fever indicates infection. Ureteric stone in a single kidney or bilateral ureteric stones can cause complete anuria and rapid deterioration of renal function⁴

Obstruction in the Urinary tract increases the susceptibility to infections, it can occur at any level of urinary tract from renal pelvis till urethra, but we consider specifically the



intraluminal (within the lumen of ureter) obstructive causes like calculi

A stone in ureter usually comes from kidney above and often causes intermittent attacks of ureteric colic – waves of agonizing pain are typically referred to the groin, external genitalia, hematuria is a typical presentation of ureteric obstruction, most commonly due to calculi⁵

Theories regarding urinary stone formation are incomplete. Stone formation requires super saturated urine with bio minerals, which in turn depends on urinary pH, citrate excretion etc. Types of stones in urinary tract has been summarized as below-

STONE COMPOSITION	% OF ALL STONES	CAUSE	RADIO DENSITY
1. Calcium oxalate	80-85%	Acidic urine	Radiopaque
2. Uric acid	5-10%	Acidic urine	Radiolucent
3. Struvite	2-20%	Kidney infections	Radiopaque
4. Cystine	1%	Genetic	Slightly radiopaque
5. Calcium phosphate	Rare	Hyperparathyroidism	Radiopaque ⁶

- There are five sites of anatomical narrowing in ureters, where the stone may be arrested.

Uretero pelvic junction

Crossing the iliac artery

Juxta position of Vas deferens/ broad ligament

Entering the bladder wall

Ureteric orifice inside the bladder.

A prominent urologic condition is kidney stone-induced ureteric obstruction, which increased by exercise and reduced by rest. The stone may become embedded as the adjacent ureteric wall, eroded and oedematous as a result of pressure ischaemia. Perforation of the ureter and extravasation of urine is a rare complication⁶.

MEDICAL EXPULSIVE THERAPY (MET):

MET is a treatment option with drugs which facilitates the spontaneous passage of ureteric calculi⁷ Use of medications to facilitate ureteral stone passage prior to surgical intervention⁸

The conventional system used drugs for medical expulsive therapy are alpha- antagonists[tamsulosin] and calcium channel blockers[nifedipine] with greater rate of spontaneous stone expulsion⁹ mostly given to patients < 10 mm size

The use of medical expulsive therapy of conventional medicines prior to SWL was associated with a 17% increase in success rates, post surgery utility has also known to show significant improvement¹⁰

Homoeopathy is concerned not only with disease per se, but in its primary, functional or dynamic aspect, with the focus and attention upon the individual and not only upon the pathological end products of the disease.

A prospective, multicentric observational study on urolithiasis, was conducted by CCRH in which 106 cases reported of expulsion of calculi out of 220 cases. The Individualized homoeopathic medicines found beneficial in this study were *Lycopodium*, *Sulphur*, *Pulsatilla nigricans*, *Nux vomica* and *Cantharis* etc¹¹

CLINICAL FEATURES:

A stone in the ureter usually comes from the kidney. Most pass spontaneously. A stone passing down the ureter often causes intermittent attacks of ureteric colic.

Ureteric colic- The waves of agonising loin pain are typically referred to the groin, external genitalia and the anterior surface of the thigh. As the stone enters the bladder, the pain can be referred to the tip of the penis.

Pain- abrupt onset, severe enough to make pt restless and moving constantly into unusual positions, disturbs sleep

Impaction- There are five sites of narrowing where the stone may be arrested an impacted stone causes a more consistent dull pain, often in the iliac fossa and increased by exercise and lessened by rest. Distension of the renal pelvis

due to obstruction may cause loin pain. The stone may become embedded as the adjacent ureteric wall becomes eroded and oedematous as a result of pressure ischaemia. Perforation of the ureter and extravasation of urine is a rare complication.

Severe renal pain subsiding after a day or so suggests complete ureteric obstruction. If obstruction persists after 1–2 weeks, the calculus should be removed to avoid pressure atrophy of the renal parenchyma.

Haematuria- Almost all ureteric colic is associated with transient microscopic haematuria. Serious bleeding is uncommon and should suggest clot colic¹²

ABDOMINAL EXAMINATION:

There is tenderness and some rigidity over some part of the course of the ureter. The presence of haematuria does not rule out appendicitis because an inflamed appendix can give rise to a local ureteritis leaking some red cells into the urine. The patient with acute ureteric colic is usually in greater pain and less ill than one with appendicitis or acute cholecystitis¹³

LITERARY PROOF FOR EFFICACY OF HOMOEOPATHIC REMEDIES FOUND IN VARIOUS IMPORTANT THERAPEUTIC BOOKS:

Sr.no	Book name- author	Remedies
1	Homoeopathic Therapeutics by Dr. Samuel Lilienthal MD ¹⁴	Berberis vulgaris, cantharis, lycopodium, sepia
2	Homoeopathic Materia Medica by William Boericke MD ¹⁵	Argentum nitricum, belladonna, benzoic acidum ,calcareo renalis.
3	Dictionary of Practical Materia Medica by J.H.Clarke ¹⁶	Nux vomica, ocimum canum, calcarea carbonicum.
4	Lectures on Homeopathic Materia Medica – Dr.J.T.Kent ¹⁷	Hydrangea, lycopodium ,berberis vulgaris.

STUDY RATIONALE:

Evidence from Published Literature

Systematic Review of Urological Homoeopathy

A systematic review (1981–2017) identified only four controlled trials (three RCTs, one sequential allocation) and 14 observational studies on homeopathy for urological conditions, including renal/ureteric stones. Although all studies reported positive effects, the controlled trials were generally underpowered and at high risk of bias, and the overall evidence was deemed inconclusive and methodologically weak¹⁸

Case Reports and Small Clinical Observations

A case of a 26-year-old female with multiple renal calculi treated with individualized homeopathy (*Lycopodium clavatum 30C*) showed apparent complete expulsion within **5 months**, supported by modified Naranjo criteria¹⁹

Another report described a **1.0 × 0.4 cm distal ureteric stone** expelled after prescribing *Tabacum* followed by *Belladonna* and later *Calcarea carbonica*. Stone expulsion and symptom relief were documented by CT scan²⁰

Mechanistic and Broader Evidence

A narrative review exploring the pathophysiology of renal stones and homeopathic drugs suggested theoretical rationales for certain remedies, but lacked any controlled human trials²¹

MATERIAL AND METHODS:

TRIAL DESIGN: Patients fulfilling the case definition and inclusion, exclusion criteria will be considered for study, case taking will be done as per standard case format.

STUDY REGISTRATION: Trial registered prospectively on 18/04/2024 in The Clinical Trial Registry-India (CTRI) for the protocol -trial registration number-CTRI/2024/04/065889.

ETHICS APPROVAL: The institutional ethics committee (IEC) gave its approval letter to the study protocol with ref: Protocol No. BVDUHMC/2023/02/16. The protocol obeyed with Good Clinical Practice. Before enrolment, all the patients received an informed consent form in English as well as the regional vernacular, Marathi and gave their consent signature.

TIMELINES:

Time frame for acute pain management – half an hour after receiving homoeopathic medicine Time frame for stone expulsion – 1 to 4 weeks after receiving homoeopathic medicine.

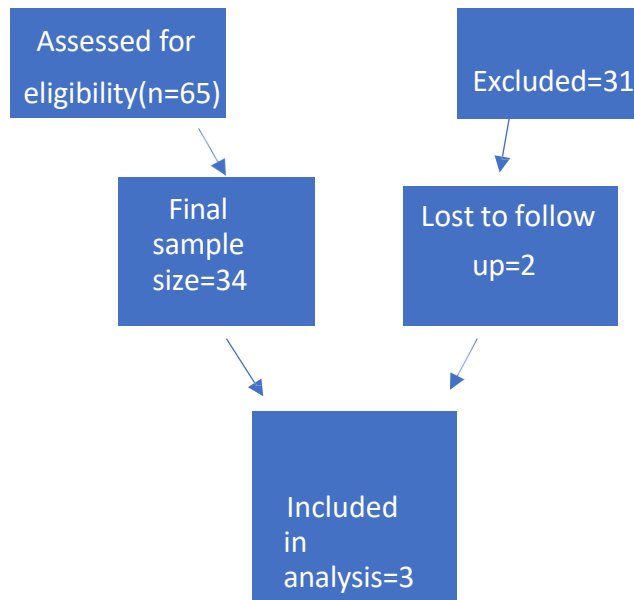
Follow up depends on severity of the symptoms and as per the need and necessity of the cases, preferably once in 7 days in the beginning and later every fortnight, and then monthly once.

Follow ups will be assessed by appropriate investigations required according to the patient like KUB radiography etc.

PARTICIPANTS:

Cases pre-diagnosed/newly diagnosed with ureteric calculi less than or equal to 7mm of age group 18-60 years and fulfilling all inclusion and exclusion criteria will be considered.

SAMPLE SIZE- 32 CONSORT FLOWCHART:



EXCLUSION CRITERIA:

Immune compromised individuals, subjects with systemic diseases and endocrinal disorders.
 Ureteric calculi associated with concurrent infection, Pyonephrosis.
 Structural malformations like Solitary kidney, duplicated ureter, ureterocele etc.
 Pregnancy.

INCLUSION CRITERIA:

Ureteric calculi distal to Pelvi- ureteric junction and proximal to Uretero-vesicular junction.
 Ureteric calculi less than, or equal to 7mm in size.
 Age group: 18-60 years of both sexes.

WITHDRAWAL CRITERIA:

If the condition of the patient deteriorates with fever, spreading infection.
 If the patient does not pass the stone within a time period of 4-6 weeks.

If the Pain frequency increases without change in position of calculus.

If the patient is irregular for the follow ups.

INTERVENTIONS:

Selection of individualized Remedy will be done after a proper case taking as per standardized case proforma and repertorization of each case will be done, and remedy differentiation will done using Materia medica and based on Homoeopathic principle of Symptom Similarity.

Dosage will be decided according to the need of patient.

ASSESSMENT TOOLS: VISUAL ANALOGUE SCALE



VAS is frequently regarded as the preferred modality for pain assessment due to its robust validity and responsiveness to therapeutic interventions. The Visual Analogue Scale (VAS) is a famously endorsed tool for quantifying subjective pain intensity. It typically comprises a 10 cm line—most often horizontally oriented— with

verbal anchors at each end, ranging from “no pain” to “worst imaginable pain,” akin to the Numeric Rating Scale (NRS). Patients indicate their perceived pain level by marking a point along the continuum. Mechanical adaptations of the VAS, featuring a sliding marker over a

calibrated ruler, allow for precise scoring from the reverse side.

RANDOMIZATION: non randomized, clinical interventional single arm prospective study. **RISK**

MANAGEMENT:

If the patient suffers from any deterioration in their current clinical condition or any other emergency then, he will be referred for further medical management due to any complications to a Urologist and will be withdrawn from study.

RESULT CRITERIA:

It will be assessed by clinical changes in the patients.

IMPROVED: Expulsion of calculi as evidenced by investigations by the end of 1-4 weeks with general well-being of the patient.

NOT IMPROVED: No regression of signs and symptoms (no change in VAS score) till the end of 1-4 weeks. No passage of calculus.

Investigations: Will be advised according to the requirement of patient.

DATA ANALYSIS AND INTERPRETATION:

Hypotheses tested are

Ho: The average time required for stone expulsion is 30 days. Against H1: The average time needed for stone expulsion is not 30 days. To test the hypothesis, the **t-test** is used.

Table: t-test for the average time of expulsion.

Variable	N	Mean±Sd	Min	Max	95% CI	T statistic	P-value
Time of expulsion	28	29.14±10.59	10	49	(25.03, 33.25)	-0.43	0.672 ^{ns}

p-value^{ns}: not significant (>0.05), T statistic: test statistic value, 95% CI: 95% confidence interval for mean. Min: minimum and Max: maximum value.

Here, the test statistic $t = -0.43$, with a p-value of 0.672. Here, p-value < 0.05 is statistically nonsignificant.

We cannot reject Ho and conclude that the average time required for stone expulsion may be 30 days. The 95% confidence interval for the average time required for stone expulsion is approximately (25, 33) days.

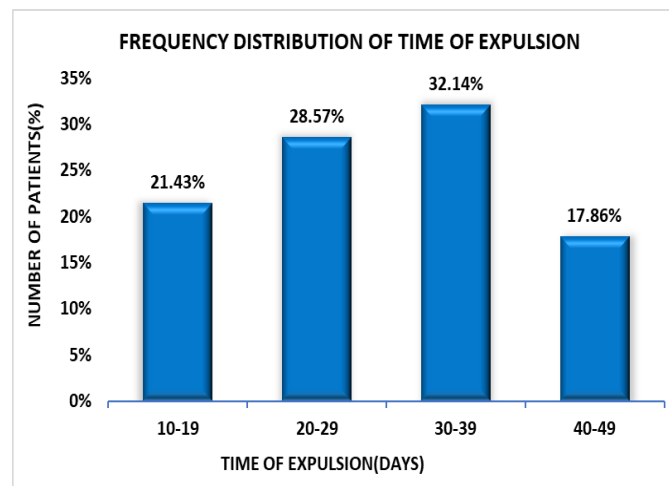


Table: Frequency distribution of time of Expulsion

Time of expulsion(days)	Number of patients	percentage
10-19	6	21.43%
20-29	8	28.57%
30-39	9	32.14%
40-49	5	17.86%

Hypotheses tested:

Ho: There is no significant difference between the average pain Score before and after treatment.

Against H₁: There is a significant difference between the average pain Score before and after treatment.
 The pain management with VAS score before and after treatment was studied. To test the hypothesis,
 H₀: There is no significant difference between the average pain Score before and after treatment. (The median difference is zero)

Against H₁: There is a significant difference between the average pain Score before and after treatment. (The median difference is non zero)
 the Wilcoxon signed-rank test is used

Table: Descriptive statistics and Wilcoxon Signed Rank Test for pain score before and after the treatment

Pain Score	N	Mean	Minimum	Median(IQR)	Maximum	Test statistic and P-value
Before Treatment	30	4.31±1.03	2	4(1)	6	Z = -4.769
After Treatment	30	2.28±0.634	1	2(1)	4	P-value =0.00**

IQR: Inter Quartile range (difference between 3rd and 1st quartile) A test used: Wilcoxon Signed Rank Test **: Highly Significant Difference, p- value **:highly significant (<0.01)

For the Wilcoxon signed rank test, the Pain score difference was calculated as the difference between the Pain Score after treatment and the Pain Score before treatment. Rank the absolute differences.

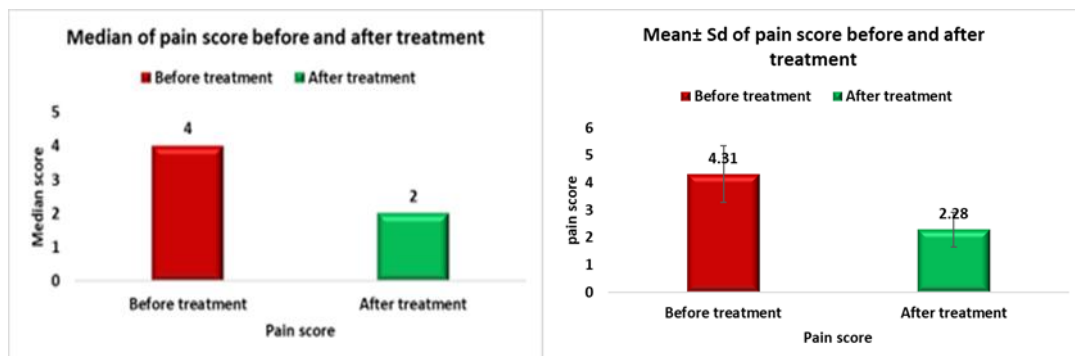
Negative ranks were calculated for the Pain score after treatment < Pain score before treatment. Positive ranks were calculated for the Pain score after treatment > Pain score

before treatment. The tie was calculated for the pain score after treatment = Pain score before treatment.

Here the test statistic, Z=-4.769, with a p-value of 0.00. Here, p-value <0.01 is statistically highly significant. Before the treatment, the median (IQR) pain Score was 4(1). After treatment, the median (IQR) pain score significantly reduced to 2(1).

The mean ±sd of pain score(VAS) was 4.31±1.03 before treatment, reduced to 2.28±0.634 after treatment.

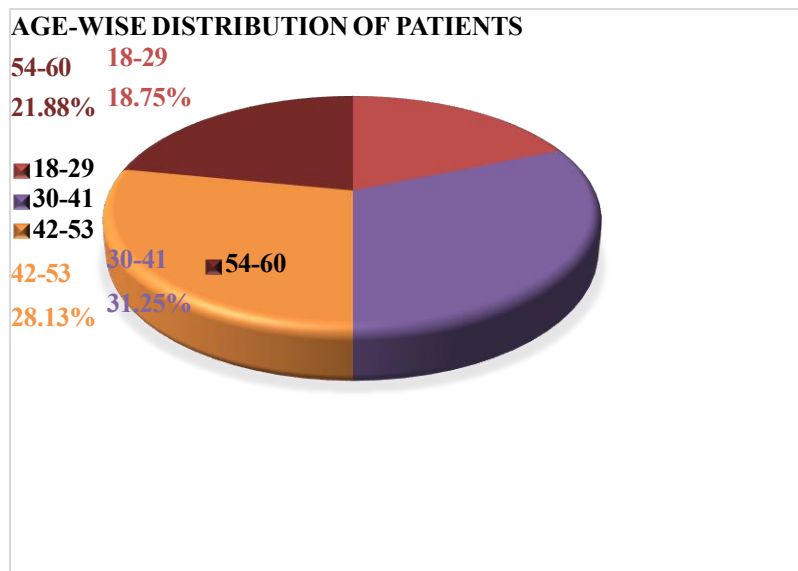
We reject H₀ and conclude that there is a significant difference between the pain Score before and after treatment.



The average time required for stone expulsion is 30 days also, there is a significant reduction in the pain after treatment. **we can conclude that the individualized homoeopathic medicines are effective as a Medical Expulsive Therapy in the management of ureteric calculi.**

DEMOGRAPHIC CHARACTERISTICS

Figure 1: Pie diagram representing Age-wise distribution of patients



Age Group	No of patients	Percentage
18-29	6	18.75%
30-41	10	31.25%
42-53	9	28.13%
54-60	7	21.88%

Table 1: Distribution of patients according to age

As shown in Table 1 and Figure 1, 18.75% of patients undergoing Medical Expulsive Therapy (MET) for ureteric calculi were aged 18–29 years, 31.25% belonged to the 30–41 age group, 28.13% were between 42–53 years, and the remaining 21.88 % were aged 54–60 years.

Gender	Number of patients	Percentage
Female	15	46.88%
Male	17	53.13%

Table 2: Gender-wise distribution of patients

Table 2 and Figure 2 show the distribution of patients according to their gender. 46.88% of patients were female, and the remaining 53.13% of patients were male.

Figure 2: Distribution of patients according to gender

Table 2: Gender-wise distribution of patients

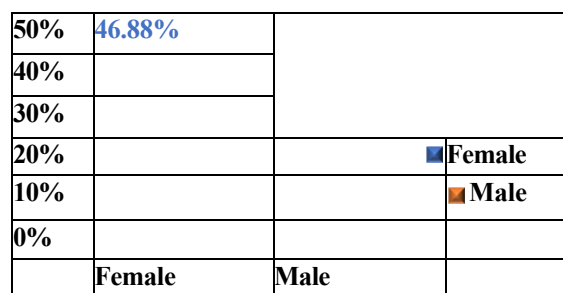
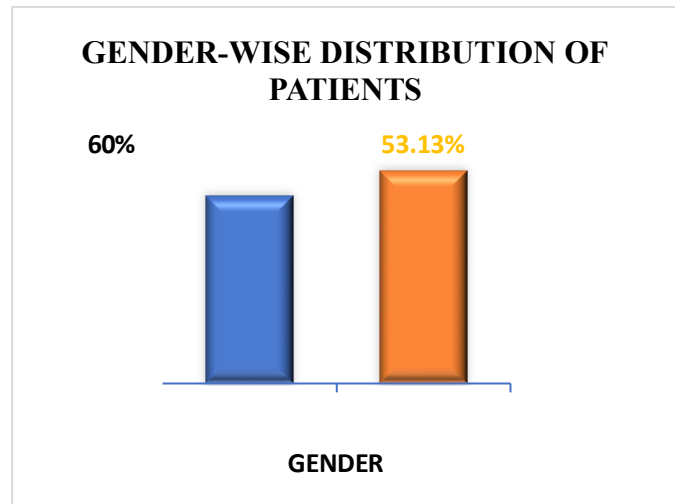


Table 3: Remedy-wise distribution of patients.



Medicine	Number of patients	Percentage
Benzoic acid	1	3.13%
Berberis vulgaris	6	18.75%
Bryonia	1	3.13%
Calcarea arsenicosum	1	3.13%
Calcarea carbonicum	1	3.13%
Cantharis	3	9.38%
Cimicifuga	1	3.13%
Hydrangea arborescence	3	9.38%
Kali carbonicum	1	3.13%
Lycopodium	4	12.50%
Natrum muriaticum	1	3.13%
Nux vomica	1	3.13%
Ocimum canum	2	6.25%
Phosphorus	1	3.13%
Sarsaparilla	4	12.50%
Sulphur	1	3.13%

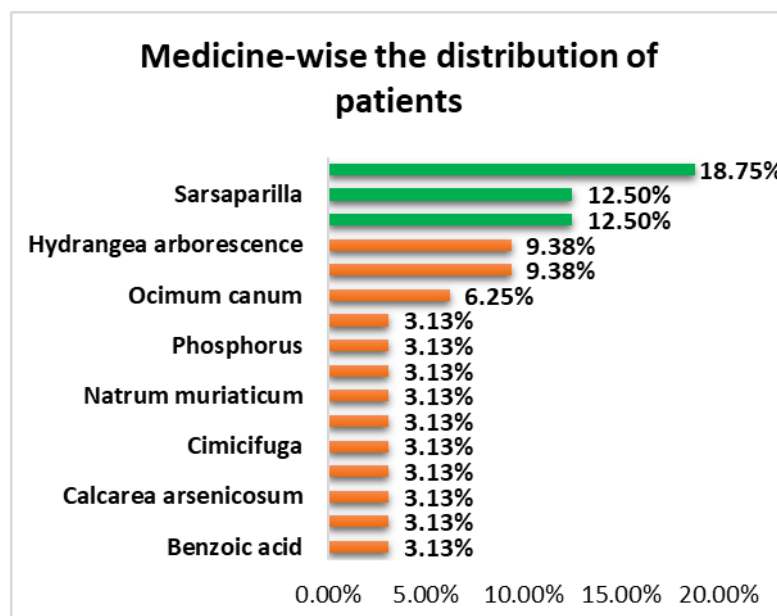
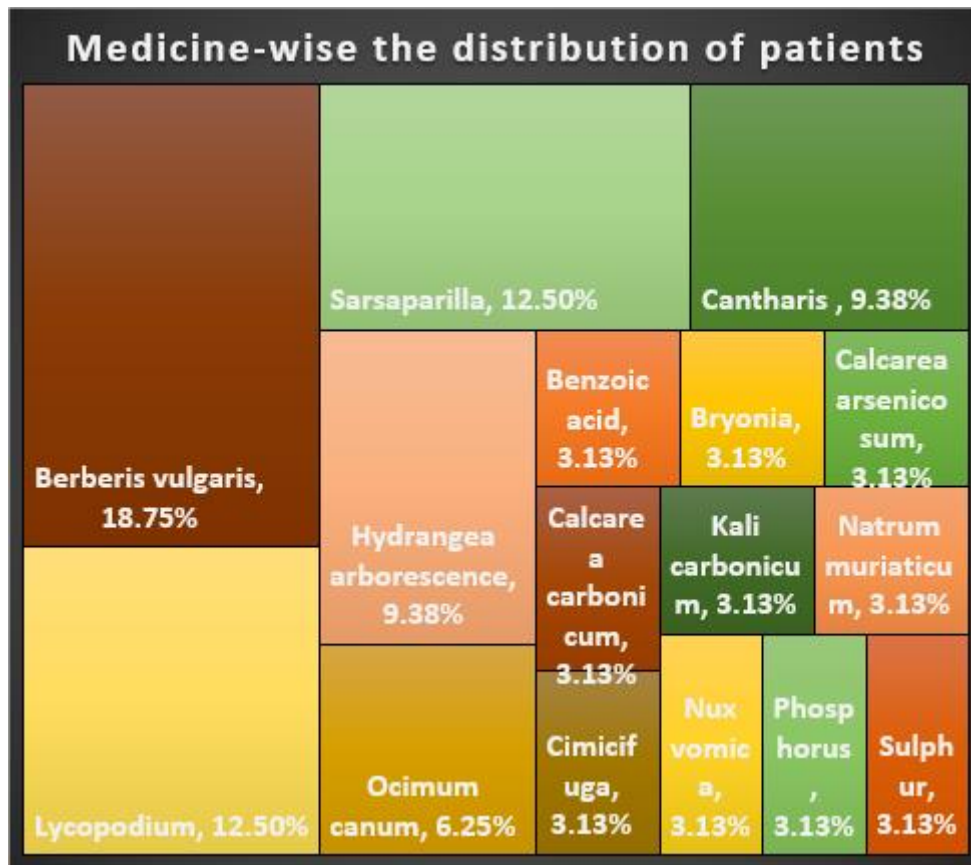


Figure 3: Remedy-wise distribution of patients.

Table 3 and Figure 3 show the remedy-wise distribution of patients. The data represents the distribution of 32 patients across 16 different homoeopathic medicines. The most frequently used medicine for ureteric calculi was Berberis vulgaris (18.75%), followed equally by Lycopodium (12.5%) and Sarsaparilla (12.50%).

Medicines like Cantharis and Hydrangea arborescence also showed notable use, each prescribed to 3 patients (9.38%). Ocimum Canum was used for 6.25% of patients, whereas the remaining medicines, such as Benzoic acid, Bryonia, Calcarea arsenicosum, Calcarea carbonicum, Cimicifuga, Kali carbonicum, Natrum muriaticum, Nux vomica, Phosphorus and Sulphur were each prescribed to only one patient (3.13%).

Table 4: Stone location-wise distribution of patients.

Stone Location	Number of patients	Percentage
mid	9	28.13%
proximal	10	31.25%
distal	13	40.63%

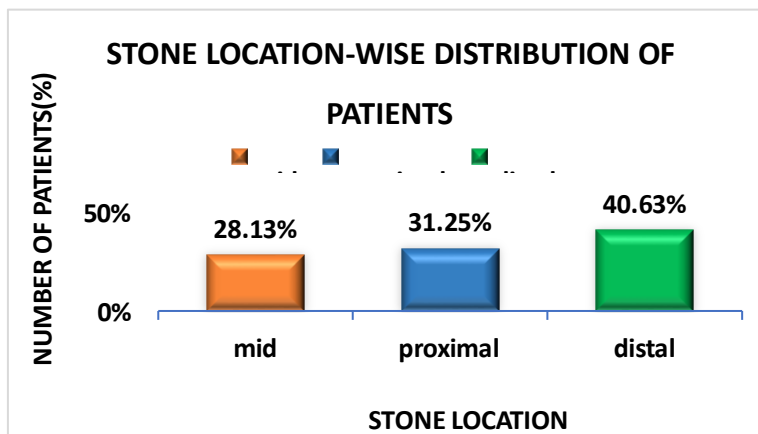


Figure 4: Stone location-wise distribution of patients.

A total of 32 patients were assessed for the distribution of stone locations across three anatomical regions of the ureter: proximal, mid, and distal.

The distal ureter was the most common site, with stones found in 13 patients (40.63%). Among 10 patients

(31.25%), the stone was in the proximal region, and 9 patients (28.13%) had stones in the mid region. The data indicate a higher prevalence of stones in the distal ureter compared to the mid and proximal segments.

Table 5: Ureteral Stone Size Distribution

Stone Size(mm)	Number of patients	Percentage
2-3	5	15.63%
3-4	5	15.63%
4-5	5	15.63%
5-6	8	25.00%
6-7	6	18.75%
7-8	3	9.38%

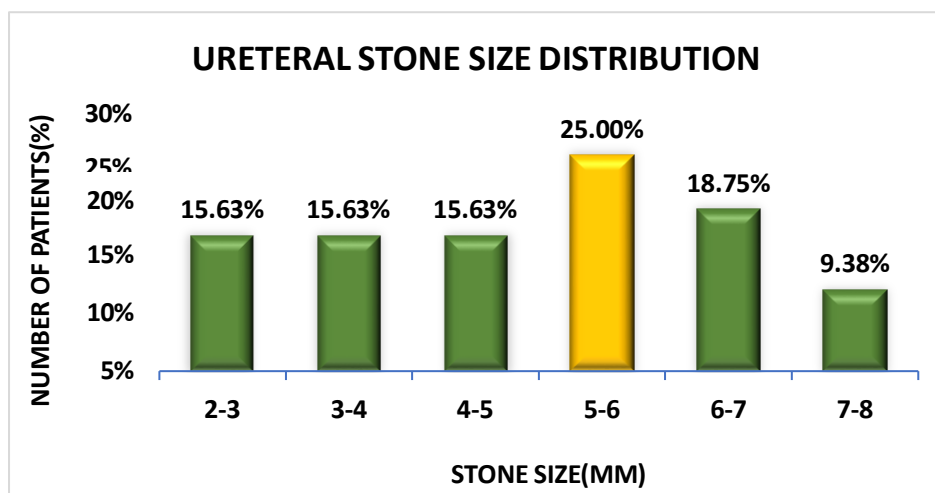


Figure 5: Frequency distribution of Stone size(mm)

Table 5 and Figure 5 show the distribution of ureteral stone sizes among patients. The 5–6 mm stone size range was the most prevalent, observed in 25% of cases (8 patients). among the total. Stone sizes between 2–5 mm collectively represent 46.89%,

suggesting nearly 50% the patients had smaller calculi. Among the total patients, six patients (18.75%) had 6-7 mm calculi. A gradual decline is seen as stone size increases beyond 6 mm, with only 9.38% of cases in the largest range (7– 8 mm).

Table 6: Laterality of Ureteral Stone

Laterality	Number of patients	Percentage
left	17	53.13%
right	15	46.88%

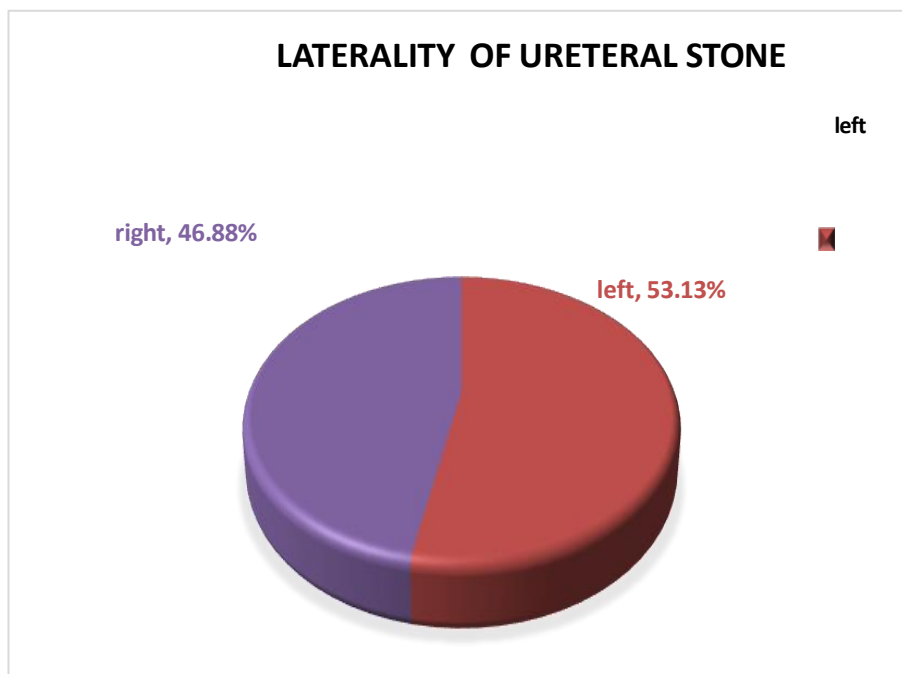


Figure 6: Laterality of ureteral Stone

Table 6 and Figure 6 present the laterality of ureteral stones among 32 patients. Ureteral calculi were observed on the left side in 53.1% of cases (17 patients), while the remaining 46.9% (15 patients) had stones on the right side.

Table 7: History of stones

History of stones	Number of patients	Percentage
No	26	81.25%
Yes	6	18.75%

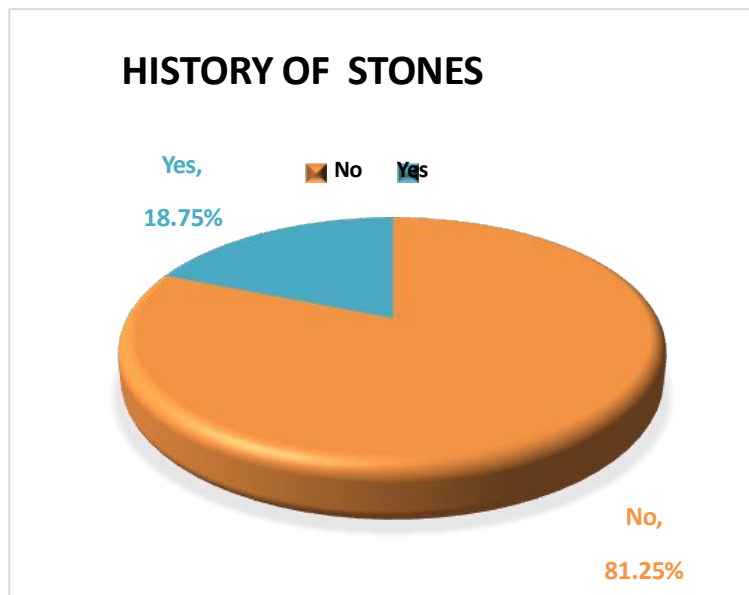


Figure 7: History of stones

Table 7 and Figure 7 present the history of stones in patients. Out of 32 patients, 18.75% of patients had a history of stone, whereas the remaining 81.25% of the patients had no history.

Table 8: Distribution of analgesic usage

Use of analgesic	Number of patients	Percentage
No	26	86.67%
Yes	4	13.33%

Figure 8: distribution of analgesic usage

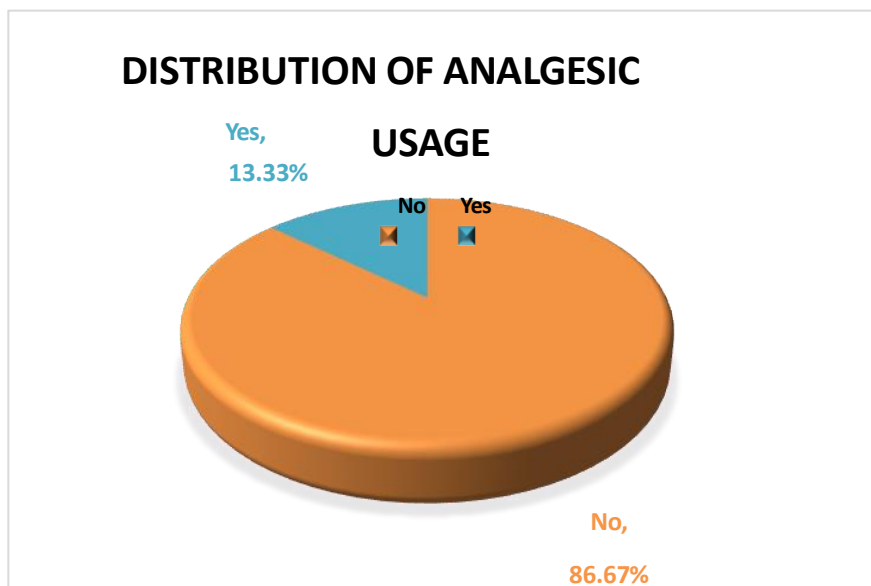


Table 8 and Figure 8 present the distribution of analgesic usage among patients. Most patients (86.67%) did not use analgesics. Only 13.33% of the patients reported using analgesics.

Table 9: Distribution of Stone-Expulsion outcome

Stone- Expelled	Number of patients	Percentage
No(size reduced)	2	6.67%
Yes	28	93.33%

Table 9 and Figure 9 show the distribution of the Stone-Expulsion outcome among 30 patients. (Two patients have dropped out of the study.) Most patients (93.33%) successfully expelled the stone, indicating a highly effective treatment. Only 2 patients (6.67%) did not expel the stone entirely but showed a size reduction.

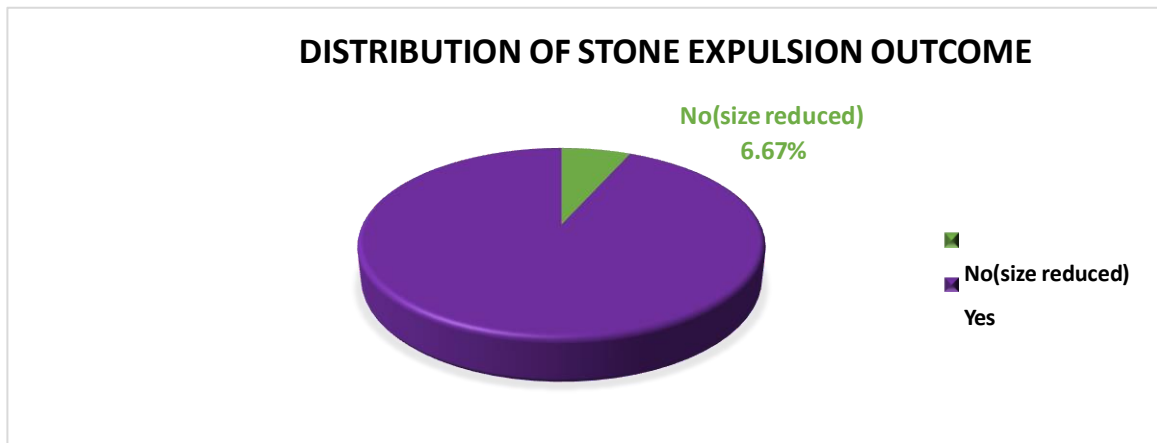


Figure 9: Distribution of Stone-Expulsion outcome

DISCUSSION:

The study findings are succinctly summarized based on the results of statistical analysis.

Highest incidence was observed in the 30-41 age group.

Ureteric calculi was commonly observed in males.

The most frequently indicated remedy was Berberis Vulgaris, followed by Lycopodium and Sarsaparilla.

Most of cases involved distal ureteric stone location in majority then followed by proximal.

Most common stone size involved in ureteric calculi were 5-6 mm, followed by 6-7mm.

Most cases had left sided ureteric calculi laterality up to 53% Majority of cases in study had no past history of stones, only 20% reported a positive past history.

Analgesic use in majority of patients was not needed up to 86% during the course of study.

In this study, event of stone expulsion outcome was achieved for maximum cases.

The average time of expulsion was 30-39 days, followed by 20-29 days for maximum patients after the initiation of treatment.

Majority of patients showed VAS score improvement after initiation of treatment with mean of 2.28±0.634

Two patients though no expulsion of stone was noted, showed reduction in size of calculus.

The findings indicate that the typical duration for stone expulsion with personalized homeopathic treatments is 30 days, and there was a notable reduction in the average VAS score among patients throughout the study . This clearly establishes that individualized Homeopathic medicines may

serve as an alternative to standard medical expulsive therapy for the treatment of ureteric calculi.

CONCLUSION

Mean time for stone expulsion was 29.14+1.5days (95%CI:25.0333.25) which was statistically not different from hypothesized duration of 30days(p=0.672).

Two patients, though no expulsion of stone was observed, showed reduction in size of calculus.

The frequently indicated remedies were Berberis Vulgaris, Lycopodium and Sarsaparilla.

Individualized Homoeopathic medicines showed a high SER (92%) in uncomplicated ureteric calculi<7mm.

Analgesic use was not needed up to 86% during the course of study.

A statistically highly significant reduction in pain scores was observed during treatment (Wilcoxon signed rank test, Z=-4.769, p<0.001)

Clinical Significance

Non-invasive Alternate therapy to conventional treatment for Uncomplicated ureteric calculi.

No adverse effects, events reported during trial.

Reduced need for analgesics.

Potential for integrative medicine approach in Endourology.

Reduces surgical burden in uncomplicated cases.

Limitations

The Size of the sample is small.

Certain factors, such as dietary management and the placebo effect, were not assessed in the study. There is no assessment of Recurrence of ureteric calculi.

Exact pathway/mechanism of action of Homoeopathic medicines on ureteric calculi remains unambiguous.

RECOMMENDATIONS

A larger sample size and a longer research duration would yield more robust results.

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