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TO EVALUATE THE USEFULLNESS OF INDIVIDUALISED HOMOEOPATHIC MEDICINES VIS-AVIS PREIDENTIFIED MEDICINES IN MANAGEMENT OF UROLITHIASIS.

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ABSTRACT

Background: A vast population is affected by Urolithiasis with the prevalence, incidence and recurrence rate is reported to be increasing across the world. Homoeopathy serves as an alternative medicine in management of Urolithiasis. **Methods:** 105 cases of Urolithiasis were randomly allocated to the three treatment groups. In Group A Individualised Homoeopathic Medicines (n=35 cases) was selected on the basis of the totality of the symptoms; in Group B *Epigea repens* (n=35 cases); and in Group C *Uva ursi* was selected on the basis of

symptom similarity (Two particular symptoms). Assessment and reassessment was done using scale adapted from Urolithiasis Symptom Score Index (USSI) and Ultrasonography was used to assess the improvement in the study after 3 months. **Results:** After comparing pre and post treatment scores, a one-way between subjects ANOVA was conducted to compare the effect of different intervention on Urolithiasis. There was a significant difference among Groups as determined by one-way ANOVA [F (2, 94), = 9.236, P = 0.00], Post hoc comparisons using the LSD test indicated that the mean score for the Group A- Individualised Homoeopathic Medicine (M= 4.75, SD = 3.43, t = 15.07) was significantly different From the Group B –*Epigea repens* (M = 7.71, SD = 3.39, t = 5.17), as P = 0.000 and from Group C-*Uva ursi* (M = 7.59, SD = 2.52, t = 5.78) as P= 0.000. However, there was no significant difference between mean score of Group B & Group C but was significantly different from Group A as this group was highly significant, as P = 0.00. **Conclusion:** This study proved that Individualised Homoeopathic Medicine appear to be significantly effective in the treatment of Urolithiasis as compare to *Epigea repens* & *Uva ursi* and statistically there is no significant difference in results of *Epigea repens* & *Uva ursi*.

KEYWORDS: Urolithiasis, *Epigea repens & Uva ursi*, Individualised, Homoeopathy.

INTRODUCTION

The process of forming stone in urinary tract i.e. kidney,

- 1. Bladder and ureter is referred to as 'Urolithiasis'. Urolithiasis is ubiquitous and is prevalent in relatively young and productive age group a marked increase in
- 2. Prevalence over the past 20 years. Kidney stone formation or Urolithiasis is a complex process that is a consequence of an imbalance between promoters and
- 3. Inhibitors in the kidneys.

Homoeopathic approach of totality of symptoms has given significant results in this area. However, homoeopathic case taking and totality formation requires a lot of time. With the increasing reliance on alternative treatments there is a need to formulate methods for fast and reliable prescriptions. There are many well proved homoeopathic medicines available to treat Urolithiasis like *Lycopodium, Berberis Vul., Sarsaparilla* etc., but lesser known homeopathic drugs *Epigea repens* and *Uva ursi* can also be beneficial for such conditions.

Epigea repens- commonly known as Mountain peak, an evergreen undershrub with red and brown roots. Clinically it is used in chronic cystitis, dysuria, strangury and pyelitis; Chronic cystitis, with dysuria; tenesmus after micturition; muco pus and uric acid deposit, gravel, renal calculi, fine sand in urine of a brown colour. [4,5] **Uva ursi-** commonly known as Bearberry, a low, evergreen trailing shrub with ascending branches and thick creeping roots. Clinically In Cystitis; painful micturition, with burning. Frequent urging, with spasm of bladder and burning, tearing pain. Urine Bloody; haematuria Slimy, purulent Contains blood and mucus, which can be gathered in huge masses. [6,7]

MATERIALS AND METHODS

Study setting: The study was conducted at the Dr. Madan Pratap Khunteta Homoeopathic Medical College & Hospital, Sindhi camp Jaipur. The study was undertaken for a period of 12 months out of which cases were registered in first nine months. The follow-up of the patient was done at an interval of 7-14 days, for minimum six visits as per gravity of the case.

Selection of samples

Group A included 35 cases treated with Individualised Homoeopathic Medicines

- Group B included 35 cases treated with *Epigea repens* (at least Two particular symptom similarity)
- Group C included 35 cases treated with *Uva ursi (at least* Two particular symptom similarity)
- Sample size has been determined to measure the change between pre-test and post-test by taking alpha=.05 and power (1-beta)= .80 and treatment effect (70-880%).

Inclusion Criteria

- Age Group: All ages
- Sex: Both sexes to be included
- Cases (symptomatic and asymptomatic) with radiological evidence (X-ray and/or Ultrasound (KUB) of calculi in kidney/ureter/ bladder □ Cases giving consent to participate in the study.

Exclusion Criteria

- Cases with moderate/severe hydronephrosis, uremia, recurrent urinary tract Infections, acute retention of urine for more than 24 hours.
- Hyperparathyroidism
- Gross developmental defects or structural abnormality of kidney
- Other systemic diseases
- Pregnant and lactating women

Drop outs- The case without proper follow-up will be excluded from the study.

Study design- Randomized, Open Label, Interventional Study

Brief of Procedures

- Cases of urolithiasis reported to opd
- Obtained consent and screening* as per inclusion and exclusion criteria
- Random allocation**** of subject to the one of the three study group case taking, was
 done.
- Case analysis, repertorisation and individualised medicine selected
- Baseline assessment** of case and baseline investigations***.
- *Screening- As Per Inclusion and Exclusion Criteria
- **Baseline assessment and reassessment

***Evaluation of Urolithiasis Symptoms Score

Table 1: Urolithiasis Symptom Score (USS) Chart.

USS CHART					
Pain/colic	0 no pain	1Mild	2 Moderate	3 Severe	
Haematuria	0	1	2	3	
naematuria	Haematuria	Microscopic	Persistent	Gross	
Dysuria	0 no	1 Mild	2 Moderate	3 Severe	
Stone	-	1 Single	2 Multiple	-	
	0 gravel <03	s1 ^{tone}	st2º ne	3 5mm &	
Size of stone	mm	3mm<4mm	4 mm - < 5mm	Above	
Position of stone	0 no	1 Pelvic Ureteric	2 Pelvis of	3 calyces of	
kidney	stone in	junction	kidney	kidney	
Position of stone	kidney0 no	1 Lower part of	2 Middle part of	3 upper part of	
ureter	stone in	ureter	ureter	ureter	
Position of stone	0 no stone	1 base of	2 Intramural		
bladder	in bladder	bladder	ureter	_	
Total scoring = 22, 1-7 mild, 8-14 moderate, 15-22 severe					

INTERVENTION

Group A: Individualised Homoeopathic medicines selected after analysis, evaluation, and constructing totality of symptoms with repertorization and due consultation of materia medica.

Group B & C- Homoeopathic preidentified medicines (at least Two particular symptom similarity)

B. EPIGEA REPENS

- Indicated for renal calculi
- Burning in the neck of bladder whilst micturation
- Tenesmus after micturating
- Pyelitis and Incontinence of urine
- Fine sand in urine of brown color

C. UVA URSI

- Kidney stones
- Involuntary urination
- Painful dysuria
- Constant urging to urinate and straining

 Burning & tearing pain.
- Characteristics shooting pain from hip to hip

Straining with only discharge of few drops of urine.

Potency selection, Dosage and Repetition – As per Hahnemannian Guidelines in

5 Edition of Organon of Medicine. Each dose consisted of one medicated globules of sugar (size no. 60). Change of medicine and/or dosage will be on Homoeopathic principles after observing change triggered after 9 Administration (status quo /improvement /deterioration/).

OUTCOME ASSESMENT: Assessment was done on the basis of

Ultrasonography of KUB region

Urolithiasis Symptoms Scores Chart ie. (USS) following formula will be applied after calculating before and after scores. Baseline Score – Score at the end * 100%

Baseline Score

Not Significant Improvement - < 25 Status % according to score of USS Chart Mild Improvement - 25-49 Status % according to score of USS Chart. Moderate Improvement-5074% according to score of USS Chart.

Marked Improvement – 75-100% according to score of USS Chart. Status Quo – When there is no change in score of USS Chart.

Worse – When there is no improvement in condition of the patient and instead his/her complaints get worse in respect to score of USS Chart.

Drop Out – When patient discontinues the treatment during the course of study or shows poor compliance.

SELECTI ON OF TOOLS

- 1. Detailed case taking proforma especially designed for the study
- 2. Ultrasonography/ X-Ray of KUB
- 3. Patient information sheet
- 4. Informed Consent form
- 5. Urolithiasis symptom score
- 6. Individualised homeopathic medicines
- 7. RADAR 10.0 versions for repetorisation
- 8. IBM SPSS 20.0 version for statistical analysis

Data Collection

- Recording of data-
- Data was recorded in approved case taking proforma
- Centralized data was collected in approved master chart in proper excel format.

These were updated from time to time.

Data Analysis: Statistical principles applied on basis of change in the score taken before and after treatment with homoeopathic medicines. Paired t test, ANOVA and Post Hoc test was used as a statistical technique. Data analysis has been done by using IBM SPSS 20.0 version and Microsoft excel.

Ethical Clearance: Yes, Ethical Committee has verified the methodology.

RESULTS

As shown in above figure, among 105 cases of Urolithiasis 44 cases (41.90%) were from age group 20-30years ,28 cases(27.61%) age group 30-40years,17 cases(16.19%) from age group 40-50years, 7cases(6.66%) were from age group 50-60 years, 7cases(6.66%) were from 10-20 years and 1 case (0.95%) and 2 cases(1.90%) were from age group 60-70 years and 0-10 years.

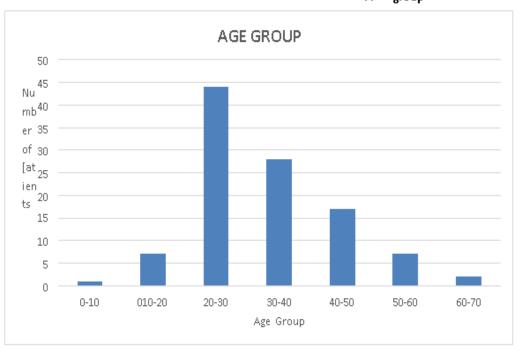


Fig -1 Distribution of cases of urolithiasisis according to "Age group"

Fig -2 Distribution of 105 cases of urolithiasis according to "G ender"

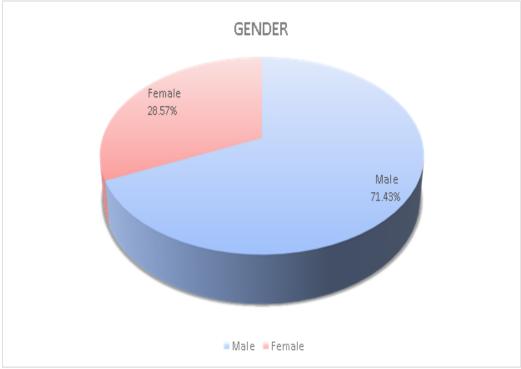
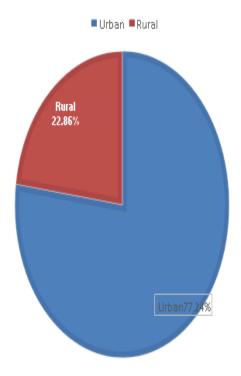


Fig - 3 Distribution of 105 case of uroli thiasis according To Area of Residence



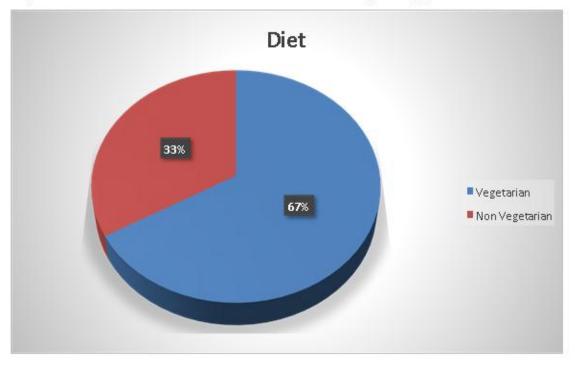


Fig - 4 Distr ibution of 105 case of uroli thiasis according to "Diet"

(71.43%) were male whereas 30 cases (28.57%) were female. cases (71.14%) were from Urban whereas 24 cases (22.86%) were from rural. cases (67%) were Vegetarian whereas 30 cases (33%) were non vegetarian.

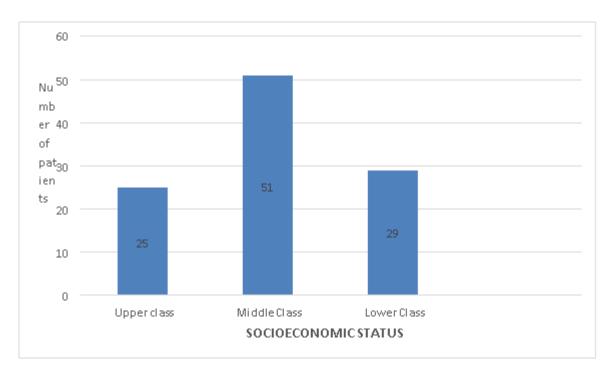


Fig. 5: Distribution of 105 cases of urolithiasis According to "Socio Econoimic Status"

Upper class, 51 cases (48.57%) were of middle class and 29 cases (27.61%)were of lower class.

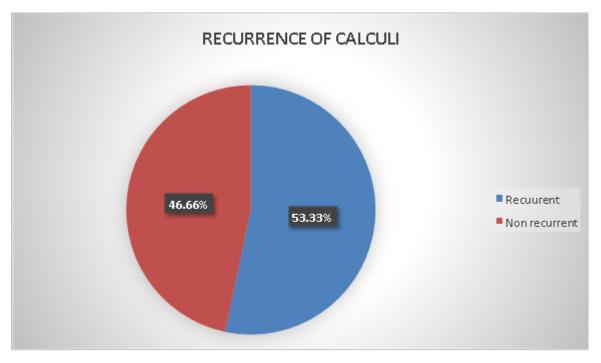


Fig. 6: Distribution of 105 cases of urolithiasis according to "Recurrence of Calculi".

Shown the Recurrence of Renal calculi and 49 cases (46.66%) of Non recurrent calculi.

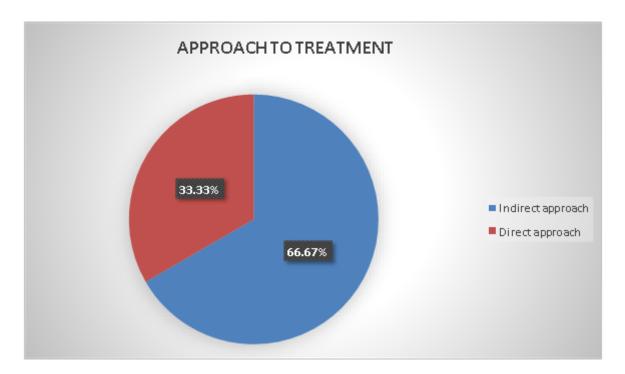


Fig. 7: Distribution of 105 cases of Urolithiasis according to "Approach to treatment".

Have shown the history of Indirect Approach to treatment and 35 cases (33.33%) have shown the history of Direct Approach to treatment.

Table 2: Distribution of 105 cases of Urolithiasis according to presenting complaints (Renal colic/ Haematuria/ Dysuria).

S. N.	Presenting complaints	No. of patients	Percenta ge
1.	Renal colic + Haematuria + Dysuria	31	29.52%
2.	Renal colic + Haematuria	2	0%
3.	Renal colic + Dysuria	60	57.14%
4.	Haematuria + Dysuria	1	0.95%
5.	Renal colic only	8	7.61%
6.	Haematuria only	1	0.95%
7.	Dysuria only	2	1.90%

As shown in above table, among 105 cases of Urolithiasis, 60 patients (57.14%) have shown renal colic and dysuria as their presenting complaints, whereas 31 patients (29.52%) presented with renal colic, haematuria and dysuria, 1 patient (.95%) presented with Dysuria and haematuria, 8 patients (7.61%) presented with renal colic and 2 patients (1.90%) presented with dysuria only and Renal colic & Haematuria..

Table 3: Distribution of 105 cases of Urolithiasis according to Associated Complaints.

S. No.	Concomitants	No. of patients	Percentage
1.	Nausea + Headache	1	0.95%
2.	Nausea + Heaviness in abdomen	2	1.90 %
3.	Nausea	4	3.80%
4	Flatulence	13	12.38 %
5	Flatulence + Headache	7	6.66%
6	Flatulence + Heaviness in	7	6.66 %
7	Heaviness in abdomen	26	24.76 %
8	Headache + vomiting	1	0.95%
9.	Headache	2	1.90%
10.	Vomiting	1	0.95%
11	Nothing specific	41	39.04%

As shown in above table, among 105 patients of Urolithiasis, 41 cases (39.04%) with Nothing specific concomitants symptoms and 26 cases (24.76%) presented with the Heaviness in abdomen as an associated with their presenting complaints, followed by Nausea and Flatulence i.e. in 4 cases (3.80%) and 13 cases (12.38%), 2 cases(1.90%) of Headache.

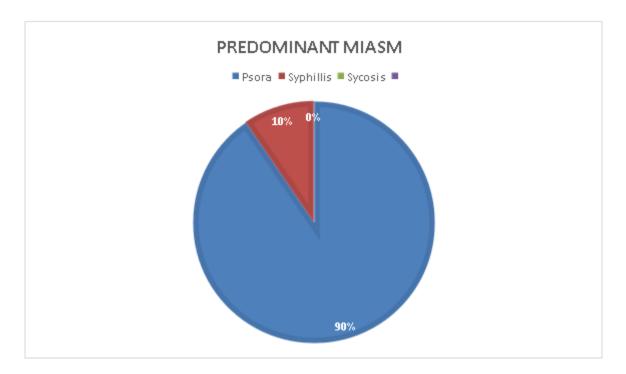


Fig. 8: Distribution of 105 cases of urolithiasis According to "predominantmiasm".

As shown in above figure, among 105 cases of Urolithiasis, 95 cases (90.48%) Found predominantly Psoric and 10 cases (9.52%), found predominantly Sycotic.

Table 4: Distribution of cases of urolithiasis according to "indicated medicine in group A".

Indicated Medicine	No. of patients	Percentage (%)
Lycopodium	9	25.71
Phosphorus	6	17.14
Calcarea Carbonicum	5	14.28
Sulphur	5	14.28
Natrummuriaticum	4	11.42
Argentum Nitricum	1	2.85
Silicea terra	1	2.85
Thujaoccidentalis	1	2.85
Medorrhinum	1	2.85
Arsenicumalbum	1	2.85
AcidicumNitricum	1	2.85

As shown in above table out of 35 patients in **Group A**, *Lycopodium* was indicated medicine prescribed in maximum no. of patients i.e. in 11(36.67%), followed by in *Phosphorus* 6 (17.14%) patients, *Calcarea carbonicum* in 5 (14.28%) patients, *Sulphur* in 5 (14.28%) patients, *Natrum muraticum*in 4 (11.42%) patients, *Argentum nitricum*, *Silicea terra*, *Thuja occidentalis*, *Medorrhinum*, *Arsenicum album and Acid nitricum*., in 1 case (2.85%) each.

Table 5: Severity of 105 cases of Urolithiasis per Urolithiasis Symptom Score Index Chart Score before treatment and after treatment.

S.	Severity of Group A (Individualised Homoeopathic		Group B (EpigeaRepens)		Group C (UvaUrsi)		
No.	case	Before Treatment	After Treatment	Before Treat	After Treatment	Before Treatment	After Treatment
1.	Mild (1-7)	2	18	2	12	3	9
2.	Moderate (8-14)	27	6	33	18	30	21
3.	Severe (15-22)	6	0	0	0	2	0
4.	Complete calculi free (score-0)	0	9	0	2	0	2
5.	Drop outs	-	2	-	3	-	3

As shown in above table, **In Group- A** (Individualised Homoeopathic medicine) Before treatment, maximum cases i.e. 27 cases out of 35 were found with moderate severity level and 6 cases were severe and 2 were mild. After treatment only 18 cases were found with mild severity level, 6 cases were moderate and there was no severe case, whereas 9 cases were found with 0 score after treatment and 2 cases were drop outs from the study.

In Group - B (*Epigea repens*) Before treatment, maximum cases i.e. 33 cases out of 35 were found with moderate severity level, 2 cases were mild. After treatment only 18 cases were found moderate, 12 cases were mild and there was no severe case, whereas 2 cases were found with 0 score after Treatment and 3 were drop outs from the study.

In Group - C (*Uvaursi*) Before treatment, 30 cases were found with moderate severity level 13 cases were mild and 2 cases were severe. After treatment 21 cases were moderate, only 9 case were mild, whereas only 2 cases were found with 0 score after treatment and 3 cases were dropped from the study.

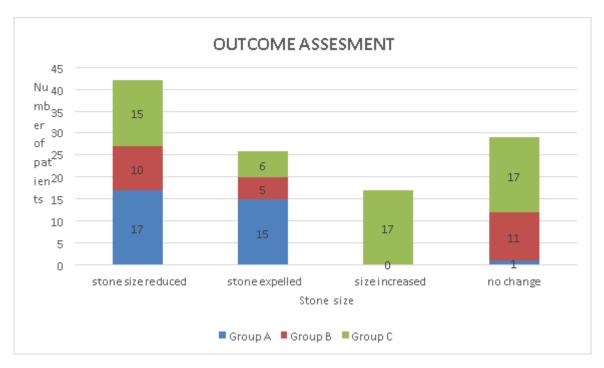


Fig. 9: Distribution of 105 cases of Urolithiasis according to outcome (stone expelled / stone size reduced/ stone size increased/ no change in numbers and size of stone as well).

Stone size reduced, from which 17 cases were from Group A, 10 cases were from Group B and 15 cases were from Group C. In 29 cases (29.89 %) no change in stone size out of which in 17 cases (4.76%) were from Group B, 11 cases(10.47%) were from Group B and 1 case(.95%) was from Group A. And in 26 cases (26.80%) Stone Expelled out of which 15 cases were from Group A, 5 cases were from Group B and 6 cases were from Group C.

Table 6: Evaluation of cases in which stone was expelled.

	S. No.	No. Side of stone Group A (Individualised Homoeopathic Medicine.)		Group B (Epigea repens)	Group C (Uva ursi)
Ī	1.	B/L	1	1	0
ſ	2.	Right sided	6	0	2
Ī	3.	Left sided	2	1	0

As shown in above table, among 105 cases of Urolithiasis, in 8 cases (7.61%) Right sided stones were expelled, out of which 6 cases from **Group A**, and 2 cases from **Group C**, in 3 cases (2.85%) left side stones were expelled, out of which 2 cases (1.90%) from **Group A** and 1 case (.95%) from **Group B**, 2 cases(1.90%) were B/L ie 1 from **Group A** and **Group B**.

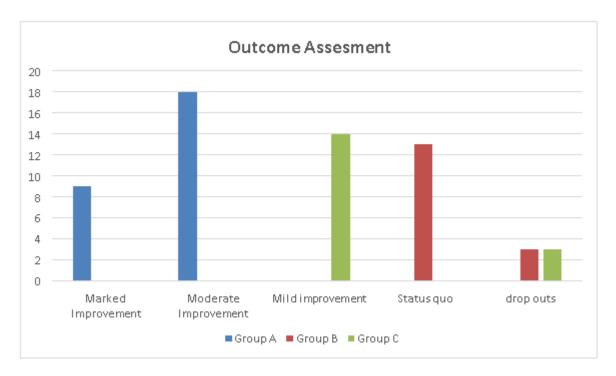


Fig. 10: Distribution of 105 cases of Urolithiasis in different groups according to outcome assessment as per USS Index Chart.

which maximum cases were from Group A –Individualised Homoeopathic Medicine i.e. 9 cases, 18 cases (17.14%) had shown Moderate Improvement, out of which maximum cases were from Group A- Individualised i.e. 11 cases, 35 cases (33.33%) has shown Mild Improvement, out of which maximum cases were from Group C- *Uvaursi*. ie. 14 cases and 25 cases (23.80 %) remained status quo, out of which maximum cases were from Group B- *Epigea repens* i.e. 13 cases. 8 (7.61%) cases were dropped out of which 3 cases each from Group B and Group.

DISCUSSION

A Discussion on various aspects observed in study has been given below:

AGE GROUP

It has been observed that maximum incidence of Urolithiasis i.e. in age group 20-30 11 years ie. similar to previous study.

SEX- Similar to previous studies male dominance was recorded in this study, 11 and one because of larger muscle mass, High Body Mass Index (BMI) of male most important reason is because of anatomical i.e. structure of urogenital organ and male with narrow opening.

Area of Residence

Urban patients having higher incidence than rural patients. In urban population lifestyle and environmental factors plays an important role and urban people are more aware about their health issues and get diagnosed earlier than rural.

Diet

As compared to other literature, where risk of calculi formation is more common in non-vegetarian, our study does not support such observation as maximum number of cases were vegetarian.

SOCIO-ECONOMIC STATUS

In upper class could be due to their concerns towards health, Whereas, lower class is generally daily wages workers and usually they don't consult for complaints regularly if not having serious hazard.

RECURRENCE OF CALCULI

This study also favours the previous studies that recurrence is very common in cases 11 of Urolithiasis.

APPROACH TO TREATMENT

In order to get instant relief for their distressing symptoms, people flock to practitioners of modern system of medicine and are often dissatisfied due to temporary relief of their complaints &from frequent relapses. After such a treatment, these patients approach Homoeopathy Practitioner for relief of their complaints that's why indirect approach.

PRESENTING COMPLAINTS

According to literature in the cases of Urolithiasis the most common symptom is renal colic, this study also favours the statement but it was found that renal colic and dysuria both were present in maximum cases.

ASSOCIATED COMPLAINTS

It could not be stressed that Heaviness in abdomen and Flatulence could be the most common symptom associated with cases of Urolithiasis, although it is coming to the most prominent, because it may be considered as their general symptom which was not related to urolithiatic complaints specifically.

PREDOMINANT MIASM

Effort was undertaken to study the cases from miasmatic view point before prescribing. Miasmatic analysis of the cases was done on the basis of presenting complaints, past history, family history and the patient's mental and physical symptoms similarity. As in literature it is mentioned that Renal Calculi covers psorasycotic type of miasm but in this study on the basis of symptoms similarity psorais the predominating miasm, because in this study mainly symptoms found Stiching type Renal colic, burning micturition, bleeding from urination without clots these all symptoms were predominantly Psoric.

INDICATED MEDICINE

These all based on totality of case, but as shown in previous research about 12 Lycopodium role in cases of Renal calculi.

SIDE AFEECTED

This study shows that among 105 cases, shows that *Uva ursi* showed right side stone expulsion and *Epigea Repens* worked in B/L as well in Left side stone expulsion.

OUTCOME

Maximum size of stone which was removed is of 8mm and from Group A i.e. Individualised Group by *Phosphorus*.

OUTCOME ASSESMENT

For assessing the improvement Urolithiasis Symptom Score Index Chart was used. Scores before treatment and after treatment were compared in all the three groups. The oneway analysis of variance (ANOVA) was used to determine whether there are any statistically significant differences between the means of three independent groups i.e. Group A-Individualised Homoeopathic Medicine Group B – *Epigea repens* & Group C – *Uva ursi*.

There was a significant difference between Groups as determined by one-way ANOVA [F (2, 94) = 9.236, P = 0.00]. As there is significant difference, post hoc test was applied. Post hoc analysis is usually concerned with finding patterns and/or relationships between subgroups of sampled populations that would otherwise remain undetected and undiscovered.

Post hoc comparisons using the LSD test indicated that the mean score for the GroupA–Individualised Medicine. (M = 4.75, SD = 3.43, t = 15.07) significantly different than the Group B *–Epigea repens*. (M = 7.71, SD = 3.39, t = 5.17), as P = 0.000 However, the mean

score for the Group C – Uva~ursi~((M = 7.59, SD = 2.52, t = 5.78) was significantly different than the Group A and not significantly differ from Group B, as P = 0.00.

According to statistical analysis, F (2, 94) calculated i.e. 9.236is > F (2, 94) tabulated i.e. 3.09, which suggests that the null hypothesis (H₀) is rejected at 5% level of significance. Thus alternative hypothesis (H₁) is accepted, which means, Group Ai.e. Individualised Homoeopathic Medicine has more significant role than Group B *Epigea repens* and Group C *Uva ursi*.

Limitations of study

- The sample size was small. So, this study can't be generalised.
- Limited period of time for conduction of this study.

CONCLUSION

This was a randomized open label clinical trial with positive results. This study proved that intervention of Individualised Homoeopathic Medicine is significantly effective in management & expulsion of calculi in cases of Urolithiasis as compared to *Epigea repens* and *Uva ursi*. This study also stressed that statistically there is no significant difference in results of *Epigea repens* and *Uva ursi*. However, these results need further validated by conducting clinical trials with sufficiently large sample size.

Further recommendations

This study was conducted with small sample size. So, in future different population with large sample size is recommended for more reliable results. The study period was short. So, to confirm the conclusions long term studies are recommended.

The findings of above study concluded that almost all the cases responded well to the indicated Homoeopathic Similimum. This study proved the usefulness of holistic approach in treatment considering individuality of patients and not just disease symptoms for remedy selection.

Though the small sample size and study duration proved a drawback but still the study helped in demonstrating the firm foothold of Homeopathy in the cases of Urolithiasis. Continuing experience and research in this field will help in a big way to make homoeopathy more useful and effective in treatment of Urolithiasis and Homoeopathy definitely opens a ray of hope to the sufferers of Urolithiasis.

It can be concluded that 'Homoeopathic Totality of Symptoms and Miasmatic approach' should be preferred as compared to the Pre-Identified Homeopathic medicine to *Epigea* repens and *Uva ursi* in the cases of Urolithiasis.

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