



## TO ASSESS THE RISK FACTOR OF UROLITHIASIS AMONG GENERAL POPULATION.

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### ABSTRACT

Urolithiasis is one of the most common conditions seen in emergency departments (ED) worldwide, with an increasing frequency in geriatric patients (>65 years). Given the high costs of emergency medical urolithiasis treatment, the need to optimize management is obvious. We aimed to determine risk factors for hospitalization and evaluate diagnostic and emergency treatment patterns by ED physicians in geriatric urolithiasis patients to assist in optimizing treatment. Objective: 1) To assess the risk factors of urolithiasis among general population. Materials and methods: Survey approach is used in this study. Descriptive study design was used in the present study. The study was conducted at selected area of wardha. 200 samples were selected for the study. Result: According to survey among the risk factors highest people i.e. 142(71%) people out of 200 people most common risk factors of urolithiasis was drinking well/bore well water it containing more calcium and same in opposite side 58 people not drinking well/bore well water And at lowest side out of 200 sample 8(4%) people having greater than 30 body mass index. Conclusion: Analysis of data shows that the most of the people were 31-40 years of age and majority of gender male is more and in occupation of people were labor were more and most of the people were monthly income of Rs. 7001-9,000. The majority of people were having normal body mass index.

**KEYWORDS** : Urolithiasis, Emergency departments, Risk factors, General population, Geriatric patients.

### Introduction

In India, urolithiasis is more common in the northern part, also called as the "stone belt". Stone disorders are more common in men than in women. The incidence is also higher in person with a family history of stone formation. Recurrence of stone can occur in up to 50% of patient. Stone formation occurs more often in the summer month, thus supporting the role of dehydration in this process.<sup>1</sup>

Urolithiasis is the presence of stones in the urinary tract. These stones can appear in different sizes and compositions; they are favoured by dietary factors, insufficient fluid intake or urine stasis particularly in the context of anatomical anomalies. When a stone blocks a urinary tract, it causes severe pain called renal colic through tension on the urinary tract.<sup>2</sup> The typical pain is severe and arrives suddenly, starting in the back and sides and moving to the genitals. Stones can be eliminated suddenly by natural means or be dissolved by treatment with ultrasound, or in cases of large stones, they can be removed by surgery.<sup>3</sup> Many factors are involved in the incidence and type of stone formation, including metabolic, dietary, genetic, climatic, lifestyle, and occupational influences. The process of forming stones in the kidney, bladder, and/or urethra (urinary tract). A condition that is marked by the formation or presence of calculi in the urinary tract.<sup>1</sup>

Kidney stones, one of the most painful of the urologic disorders, are not a product of modern life. Unfortunately, kidney stones are one of the most common disorders of the urinary tract. A large number of people are suffering from urinary stone problem all over the globe. Kidney stones are quite common and usually affect people who are between 30 and 60 years of age. It is estimated that renal colic (severe pain caused by a kidney stone) affect about 10-20% of men, and 3-5% of women. In India, 12% of the population is expected to have urinary stones, out of which 50% may end up with loss of kidneys or renal damage.<sup>4</sup>

### Problem statement

To assess the risk factors of urolithiasis among general population

### Objectives

1. To assess the risk factors of urolithiasis among general population.

### Methodology

**Research approach-** In this study survey approach is used.

**Research design-** Descriptive study design is used in this study.

**Setting of study-** Selected area in Wardha

**Sample-** General population.

**Sample size-** 200

**Sampling techniques-** Non probability convenience sampling

**Tool-** Structured Check-list including demographic variables will be used for the study.

### SAMPLING CRITERIA

**INCLUSION CRITERIA:** 1. People who are willing to participate in the study. 2. People who are available at the time of data collection. 3. People who can read and write Marathi, Hindi and English

**EXCLUSION CRITERIA:** People who have attended similar type of this study. 2. People who are illiterate.

### Result

This section deals with the risk factors of urolithiasis among general population.

### Section A: Description of the samples according to their demographic variables.

Analysis of data shows that the most of the people were 31-40 years of age and majority of gender male is more and in occupation of people were labor were more and most of the people were monthly income of Rs. 7001-9,000. The majority of people were having normal body mass index.

### Section B: Assess the risk factors of urolithiasis among general population.

According to survey among the risk factors highest people i.e. 142(71%) people out of 200 people most common risk factors of urolithiasis was drinking well/borewell water it containing more calcium and same in opposite side 58 people not drinking well/borewell water And at lowest side out of 200 sample 8(4%) people having greater than 30 body mass index.

### Discussion

According to survey highest people i.e. 142(71%) people out of 200 people drinking well/bore well water it containing more calcium

and same in opposite side 58 people not drinking well/bore well water And at lowest side out of 200 sample 8(4%) people having greater than 30 body mass index.

The increasing incidence and recurrence rate of urolithiasis a serious social problem. In their study they found that renal, stone formation is more frequent in males than females, this finding is similar to other studies.<sup>18</sup> They found that most of the patients with renal stones were males. This could be due to anatomical differences in urinary tract between males and females; in male urethra is longer than in female which may cause accumulation and stagnation of urine in bladder for longer times. Diet is also an important factor for the development of kidney stones, especially genetically susceptible patients and with family history. A diet high in sodium, fats, meat and sugar, coffee and tea, low in fibre, vegetable protein and unrefined carbohydrates are at increased risk of kidney stones,<sup>20</sup> our study also found that high salt, coffee and tea intake and non vegetarian diet, less intake of water is also common risk factors for urolithiasis. Similar to other studies, they also found that Diabetic and Hypertension were other risk factors for renal calculi present in 17% and 23% patients respectively.

### Conclusion

Analysis of data shows that the most of the people were 31-40 years of age and majority of gender male is more and in occupation of people were labor were more and most of the people were monthly income of Rs. 7001-9,000. The majority of people were having normal body mass index.

### Recommendation

On the basis of findings of the study, it is recommended that the following studies can be conducted -

- A similar study can be undertaken for large sample to generalize the findings.
- A comparative study can be carried out on knowledge regarding risk factors of urolithiasis among people of urban and rural community.
- A similar study can be conducted in student nurses on a large population.
- A study can be undertaken to identify the existing knowledge and attitude of people regarding risk factors of urolithiasis.

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