Survey on knowledge, attitudes and practices on urinary tract stones among patients present at tertiary care unit in Sri Lanka.

ABSTRACT

Urinary tract stones affect up to 2-5% of the Asian population and up to 15% of the population in western countries. The epidemiology of urolithiasis differs according to the geographical area in terms of prevalence, incidence, age and sex distribution, stone composition and stone location. Urolithiasis is twice as common in males compared to females. This was a descriptive cross sectional study. In this study, main objective was to determine knowledge, attitude and practices with regard to prevention were assessed. Out of 290 patients 66.9% were females and 33.1% were males. Of them 26 (9%) had a history of stone disease. Their mean knowledge score was 9.03±2.14 out of 22 (41.06%). Results showed that participants who had a history of stone disease have better attitudes than those who did not have stones. Of them, participants who had a history of stone disease have better practice (45.19%) than others who did not have stones (39.02%). This study reveals that participants who had a history of stone have better knowledge and practice on urolithiasis. However, overall awareness on knowledge and practices are poor. It is generally lower than the other parts of the world. Therefore, there is a need for the implementation of awareness program on urolithiasis for general population in Sri Lanka.

KEY WORDS:

Urinary Tract Stones, Knowledge, Attitude, Practices, Out Patient Department (OPD).
I. INTRODUCTION

Urinary tract stones affect up to 2-5% of the Asian population (1) and up to 15% of the population in western countries. (2) The epidemiology of Urolithiasis differs according to the geographical area in terms of prevalence, incidence, age and sex distribution, stone composition and stone location. Urolithiasis is twice as common in males compared to females. (3) Usually the first episode of renal stones occurs commonly in young people, which is considered as 20-40 years of age. (4) Peak incidence is reported usually in the second or third decades of life. (5) As it mostly affects working age group, it is a major socioeconomic burden for the society. (6) Currently there is no published data about knowledge, attitude and practice on urinary tract stones in Sri Lanka.

In this study, our main objective was to determine knowledge, attitude and practices on Urolithiasis among patients who presented to the Out Patient Department (OPD) of the Teaching Hospital Peradeniya.

Our specific objectives were:

- To develop a scoring system to measure knowledge regarding urolithiasis.
- To calculate percentage of patients who have positive attitude on Urolithiasis.
- To study practices regarding urolithiasis.
- To compare the difference in knowledge, attitude and practice between patients who had stones previously and those who did not have stones.

II. MATERIALS AND METHODS

This was a descriptive cross sectional study. A self-administered questionnaire was distributed among 290 consenting patients selected using systematic random sampling. Patients' demographic data, knowledge on risk factors and symptoms, attitudes and their practices with regard to prevention were assessed.

III. RESULTS

Out of 290 patients 66.9% were females and 33.1% were males. Mean age of female was 37.57 ± 11.97 years and in males it was 35.59 ± 13.71 years. Their minimum age was 20 years and maximum age was 60 years. Of them 26 (9%) had a history of stone disease.

(Table 1)

Table 1: Description of the study population by gender and stone disease occurrence.

<table>
<thead>
<tr>
<th>History of stone</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
</tr>
<tr>
<td>Yes</td>
<td>9</td>
</tr>
<tr>
<td>No</td>
<td>87</td>
</tr>
<tr>
<td>Total</td>
<td>96</td>
</tr>
</tbody>
</table>

KNOWLEDGE

The results showed that mean knowledge score was 9.03 ± 2.14 out of 22 (41.06%). In our study 89.7% of subjects had heard about urinary tract stones and 39.54% knew occupations which are associated with stone disease. However, most of them (85.9%) believed hard water can cause urinary tract stones. Few participants (35.4%) were aware regarding food habits which may lead to stone formation. Their knowledge on symptoms of Urolithiasis seems to be poor (36.81%). However, 47.6% subjects knew about asymptomatic state of stone disease. A total of 240 participants agreed that the stones can lead to renal failure and 282 agreed that obstructed kidney needs urgent treatment for decompression. In the study group 59.7% believed that stones are always visible in X-ray. Regarding consultation for stone disease, 44.5% would go to a nephrologist, 36.9% would go to a urologist and 14.1% do not know whom to consult.

When we compared the knowledge score with participants, who had stone disease previously, they have shown the score of 10.54 ± 2.89 out of 22 (47.9%) whereas score of participants who did not have stone disease was 8.88 ± 1.99 out of 22 (40.3%). This was statistically significant with P< 0.01.

ATTITUDES

Results showed that participants who had a history of stone disease have better attitudes than those who did not have stones. (Figure 1)

Figure 1: Attitudes of the study population regarding stone disease

PRACTICE

Regarding Practice, 275 participants (94.8%) agreed that drinking a lot of water would avoid stone formation. However, of them 17.9% knew the correct amount to drink. 39.57% have at least some knowledge on dietary habits in prevention of stone disease. Of them, participants who had a history of stone disease have better practice (45.19%) than others who did not have stones (39.02%). Almost all participants (99.3%) agreed that they will take health care from the government hospital if they get stone disease.
IV. DISCUSSION

Our study revealed that participants’ knowledge on urinary tract stones was poor. At the same time their practice on prevention was quite inadequate.

A research done with 140 patients who were treated by lithotripsy in Armenia, found that mean knowledge score was 15.6 out of 19 (82.1%) and the mean practice score for participants was 9.1 out of 19 (47.8%). (7) However, in our study subjects who had a history of Urolithiasis showed knowledge score of 10.54 out of 22 (47.9%) which is low. A study done among 68 health care workers on knowledge, attitudes and practice on prevention of recurrent kidney stones revealed that 70% of respondents were aware the current guidelines but 43% of respondents utilized their knowledge in clinical practice. (8)

Attitudes on prevention of recurrent kidney stones showed positive attitudes in a study done among 100 patients who were referred for active stone removal in Sweden. (9) Similarly, our study population who had a past history of Urolithiasis showed positive attitudes on Urolithiasis. A study done in Hong Kong to evaluate awareness of prevention strategies on renal stones found that general public and the patients with Urolithiasis in the city have little knowledge and awareness. (10)

V. CONCLUSION

This study reveals that participants who had a history of stone have better knowledge and practice on Urolithiasis. However, overall awareness on knowledge and practices are poor. It is generally lower than the other parts of the world. Therefore, there is a need for the implementation of awareness program on Urolithiasis for general population in Sri Lanka.

VI. REFERENCES