

A NIDANATMAKA (EPIDEMIOLOGICAL) STUDY ON MUTRASHMARI**Kumar Hemant¹, Tiwari Manisha²**¹ Lecturer, Dept. of Roga Nidana Evam Vikriti Vigyan, Guru Nanak Ayurvedic Medical College & Hospital, Muktsar (Pb.)² Lecturer, Dept. of basic principles, Guru Nanak Ayurvedic Medical College, Muktsar (Pb.)**ABSTRACT**

Epidemiology is the study of disease in populations. The identification of common, modifiable risk factors for disease may result in new approach for treatment and prevention. Knowledge of risk factors is used to direct further research investigation and to implement disease control measures. In this study total 500 subjects were screened from different places of Jaipur, Rajasthan to find out the prevalence of risks factors of *Mutrashmari*.

Keywords: *Ayurveda, Mutrashmari, Epidemiology*

INTRODUCTION:

Epidemiology is the science that studies the patterns, causes and effects of health and disease conditions in defined populations. It is the cornerstone of public health, and informs policy decisions and evidence based practice by identifying risk factors for disease and targets for preventive health care.¹ Epidemiological studies can be classified as observational studies and experimental studies with further subdivisions:

Cross-sectional studies (Non-experimental): It is one time or at a point of time study of all persons in a representative sample of a specific population such as examination of all people in age group 18 to 70 years, detection of *Mutrakricchra Vikara* and study of the factors that lead to that finding prevalence in age group of 18 to 70 years of people or morbidity due to *Ashmari*. Such studies indicate point prevalence, i.e., number of cases at the time of study. Field surveys in health or disease problems in community and census are other examples of cross-sectional studies. The study cannot cover the

entire population at one point in time. To do that examine part of population today but don't go into the population surveyed already. Next day, study the same items in remaining part, day by day till entire population for study is covered.

Include relevant data about person, place or time, e.g. tabulate *Mutrakricchra Vikara* in particular age, sex, occupation (persons), prevalence in Jaipur (place), in the year 2014, such studies are conducted in the field and not in the laboratory or hospital.

AIMS AND OBJECTIVES:

1. To find out *Nidanatmaka* properties of *Mutrakricchra Vikara*.
2. To find out the prevalence of *Ashmari* in general population of Jaipur, which have any signs & symptoms of urinary problem or urinary stone.
3. On the basis of this study try to recommend suggestions to prevent *Ashmari*.

STUDY DESIGN:

1. **Conceptual study** - For present study both *Ayurvedic* and Modern literatures were concerned.

2. **Epidemiological study** - For epidemiological survey the subjects were selected from different places of Jaipur.

MATERIALS AND METHODS:

For epidemiological survey a total of 500 subjects were screened from different places of Jaipur, Rajasthan, as per proforma for this all subjects were selected on the following criterias –

Inclusion criteria:

1. Adults more than 18 years and less than 70 years.
2. Persons having signs and symptoms of *Mutrakricchra Vikara*,² like – *Nabhi, Basti Vedana* (Abdominal pain), *Mutrakricchrata* (Dysuria), *Sarudhira Mutrata* (Haematuria), Burning micturition etc.³

Exclusion criteria:

1. New born, children and old persons.
2. Patients suffering from major illness like T.B., cancer, HIV/AIDS.

INVESTIGATIONS:

For epidemiological study the persons were investigate by previous diagnostic reports.

Assessment criteria:

Epidemiological study was assessed on the basis of subjective parameters like – (*Mutrakricchra Vikara*) Abdominal pain, Dysuria, Haematuria, Burning micturition etc. as per "Survey Record Proforma" developed by P.G. department of Roga & Vikriti Vigyan NIA Jaipur, and also on the basis of USG (KUB) as objective parameter.

Data documentation and statistical analysis:

It was a descriptive & cross-sectional study and all of its data were analyzed and expressed as percentage.

Parameter for epidemiological survey:

For epidemiological survey the following parameters were follow-

For perceiving the *Mutrashmari*, urinary problems (like dysuria, haematuria etc.) were taking into consideration. When more than one symptom was present, then the pa-

tient was count in same disease. Characteristic symptoms of this disease are as followed:

- 1) Dysuria: Painful and Difficult in micturition
- 2) Haematuria : Blood in urine
- 3) Burning micturition
- 4) Pain in abdomen: On the basis of site, duration, severity and character.
- 5) Tenderness in renal angle

EPIDEMIOLOGICAL OBSERVATION:

This epidemiological survey was conducted from 1 September 2014 to 31 Jan. 2015 in Jaipur, Rajasthan. In this survey total 500 individuals were observed to know the prevalence of *Ashmari* in Jaipur. After the study, total 122 patients of *Ashmari* were found out of 500 individuals. The detailed of which are given below –

- According to age, the maximum numbers of patients 53(43.44%) were in 31-40 years age group. But within the groups the maximum 28% was in the age group of 21-30 years.
- According to sex, males were more suffered 73(59.83%).
- According to religion, Hindu were more suffered 100(81.97%). but within groups Muslim were slightly more vulnerable to suffered (25.88%).
- According to education, maximum number of patients was 71(58%) graduate, primary patients were 24(19.67%), while 12(9.84%) patients were illiterate.
- According to occupation, it was found that maximum number of patients 50(40.98%) were from service, out of which maximum 25(20.49%) were House wives, followed by students 18(14.75%).
- According to socioeconomic status, maximum number of patients 80(65.57%) were found from middle socioeconomic status, followed by lower class 20(16.39%). socioeconomic status was based on the following annual income of the person.
- According to marital status, married were more suffered 106(66.66%).
- According to *Deha Prakriti*, it was found that maximum 50(40.98)patients were of *Vata -Kapha Prakriti*, followed by

43(35.24%) patients of *Vata -pitta* and 29(23.77%) patients were *Pitta- kapha* in *Prakriti*.

- According to *Agni Bala*, in this survey, it was found that maximum 64(52.46) patients were having *Mandagni*, followed by 39(31.97%) patients were having *Vi-shamagni*, 15(12.30%) were having *Sa-magni* and 4(3.28%) patients were having *Tikshnagni*.
- According to *Koshtha*, In this survey, it was found that maximum 84(68.85%) patients were of *Madhya Koshtha*, followed by 29(23.77%) patients of *Krura Koshtha* and 9(7.38%) patients were having *Mridu Ko-shtha*.
- According to diet, 64(52%) patients were vegetarian and 58(47%) patients were mixed in diet.
- According to *Nidana Sevana*⁴, On considering the data of *Nidana* in the present series, it was observed that all the patients i.e. 100% were *Asamshodhanashila*, followed by 93% having *Madhura Ahara*, 69.67% having *Apathya Sevana*, 63% had *Tikshna Ushnahara*, 58% had *Snigdha-hara*, 48.36% each had *Ajirna Sevana* and *Divasvapa*, 48% had *Matsya Sevana*, 45% had *Madya Sevana*, 40.98% had *Adhyashana*, 40.16% each had *Samashana Sevana* and *Guru Ahara* 30.33% had *Sheetahara*, 12.29% had *Mutravarodhana* and 11.47% had *Ativyayama*.⁵
- According to water intake, it was found that maximum 52(42.6%) patients were having water intake less than 8 glasses.
- Prevalence of *Ashmari* patients, it was found that maximum 122(26.23%) patients were found out of 500 individuals.
- Prevalence of Family history in *Ashmari* patients, it was found that 94(77.05%) patient were not having any kind of family history *Ashmari*, and only 28(22.95%) patients were having family history.
- Size of stone in 122 patients of *Ashmari*, in this survey, it was found that maximum 98(80.33%) patients were having 6-10 mm

stone size, followed by 15(12.30%) patients were having 0-5 mm stone size.

- Sites of stone in 122 *Ashmari* patients, it was found that maximum 85(69.67%) patient were having stone site in kidney, 16(13.11%) patient were having stone site in bladder, 12(9.84%) patient were having stone site in ureter and 9(7.38%) in VU junction.

DISCUSSION:

- ❖ In this study; maximum patients were found of *Vata -Kapha Prakriti* followed by *Pitta-Kapha Prakriti*. *Kapha Dosha* can easily be provoked in *Kaphaja Prakriti* persons, so they are more prone to *Kaphaja* diseases, among which *Mutrashmari* is also one. In *Ayurvedic* classics it has been mentioned that *Mutrashmari* can never form without the presence of *Kapha Dosha*, as *Kapha* forms nidus for *Ashmari* formation and development.
- ❖ In this study; maximum patients were having *Mandagni*. *Ayurveda* said that all diseases occur due to vitiation of *Agni*. So it can be said that due to *Mandagni*. *Ama* formation takes place and that may have played a role in *Ashmari* formation and maximum patients were having *Madhya Koshtha*. There is no direct relation between *Koshtha* and disease.
- ❖ In survey study; 64(52%) patients were vegetarian and 58(47%) patients were of mixed diet pattern. In *Ayurveda*, it has been described that the persons who consume more of *Sheeta*, *Snigdha* and *Guru Ahara* are more prone to *Asmarī* formation.
- ❖ According to *Nidana Sevana*; it was observed that all the patients i.e. 100% were *Asamshodhanashila*, followed by 93% had *Madhura Ahara*, 69.67% had *Apathya Sevana*, 63% had *Tikshna Ushnahara*, 58% had *Snigdha-hara*, 48.36% each had *Ajirna Sevana* and *Divasvapa*, 48% had *Matsya Sevana*, 45% had *Madya Sevana*, 40.98% had *Adhyashana*, 40.16% each had *Samashana Sevana* and *Guru Ahara* 30.33% had *Sheetahara*, 12.29% had *Mutravarodhana* and 11.47% had *Ativyayama*. The

data based on *Nidana Sevana* indicate that *Asamshodhana* was main causative factor found in all the patients, it might be due to the lack of proper *Shodhana* measures the *Kitta Bhaga* of digestion as well as accumulated *Dosha* precipitates in the system contributing to the formation of *Mutrashmari*.

- ❖ According to water resource; maximum 67 patients (54.9%) were using tap water. Several studies documented that higher water hardness is associated with higher incidence of urolithiasis among the population supplied with such water. In contrast, more studies found softer water to be associated with higher risk for urolithiasis. Nevertheless, most recent epidemiological studies explain these controversial results by differences in the study designs and say that water hardness ranging between the values commonly reported for drinking water is not a significant factor in urolithiasis.
- ❖ **According to water intake;** In this survey, it was found that maximum 52(42.6%) patients were intake water less than 8 glasses. It might be due to inadequate water intake causes the kidneys to produce less urine, so the urine will be highly concentrated. The smaller daily volume of urine, the more likely it is that a person would form urinary stones.
- ❖ **According to site of stone;** It was found that maximum patients were having renal stone. The above data indicates that the kidneys are more prone to calculi formation as these are the main organs in regard to physiology of urinary system. Chances of sedimentation of particles are more in it, as the filtration process takes place here, which may lead to stone formation.
- ❖ **According to Rasa;** Distribution of the patients according to *Rasa*, shows that maximum patients of this series i.e. 50% were having *Madhura Rasa* dominant food and 23.33% *Katu Rasa* dominancy in their daily diet. *Ayurvedic* texts mentioned as *Nidana*

REFERENCES:

that the persons having more *Madhura* and *Katu Rasa* dominant in their diet are more prone to disease *Ashmari*. So the data indicates the importance of *Nidana Sevana* in *Ashmari* formation.

CONCLUSION:

Without finding some conclusion on any study it would not become successful in its aims. A scientific discussion on the entire study definitely gives rise to some fruitful conclusions. At the end of the study, following points can be concluded on the basis of observations made, results achieved and thorough discussion in the present context.

Following conclusions are deduced from the survey based study –

500 individuals were surveyed to know the prevalence of *Ashmari* in Jaipur. After the study, total 122 patients of *Ashmari* were found out of 500 individuals.

- ✍ *Ashmari* is one of the most common and painful disease of urinary diseases. *Acharya Sushruta* has described the problem of *Ashmari* widely and comprehensively during early civilization. The concept of *Ashmari*, its etiological factors, clinical features, pathology, classification, complications and management have been described with both medical and surgical procedures in *Sushruta Samhita*.
- ✍ The survey study suggested that maximum numbers of patients were in 31-40 years age group.
- ✍ According to sex, male were more suffered.
- ✍ In this survey, it was found that maximum patients were of *Vata -Kapha Prakriti*, patients were having *Mandagni* and patients were of *Madhya Koshtha*.
- ✍ It was found that maximum patients were intake water less than 8 glasses.
- ✍ It was found that only 22.95% patients were having positive family history.
- ✍ In this survey, it was found that maximum patients were having 6-10 mm stone size and site were having kidney.

¹ (<https://en.m.wikipedia.org/?..>)

² Sushruta: Sushruta samhita, with commentary of dalhana, edited by vaidya jadavji Trikamji Acharya, Chaukhambha Surbharti Prakashan, Varanasi 8th edition, Nidana Sthana, chapter 3, verse 07, Reprint (2010)

³ Agnivesha: Charaka samhita, revised by charak and Dridhabal, with commentary of chakrapanidatta, edited by jadavji trikamji acharya, chaukhambha Sanskrit Sansthana, Varanasi. Chikitsa Sthana, Chapter 26 verse 36, 5th Edi. Reprint (2011)

⁴ Sushruta: Sushruta samhita, with commentary of dalhana, edited by vaidya jadavji Trikamji Acharya, Chaukhambha Surbharti Prakashan, Varanasi 8th edition, Nidana Sthana, chapter 3, verse 04, Reprint (2010)

⁵ Agnivesha: Charaka samhita, revised by charak and Dridhabal, with commentary of chakrapanidatta, edited by jadavji trikamji acharya, chaukhambha Sanskrit Sansthana, Varanasi. Chikitsa Sthana, Chapter 26 verse 32, 5th Edi. Reprint (2011)

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