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A case- control study to assess the knowledge and risk factors of urolithiasis among patients attending urology outpatient department (OPD) in selected hospital of Udupi district, Karnataka.

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"ABSTRACT

A research study entitled “A case control study to assess the knowledge and risk factors of urolithiasis among patients attending Urology outpatient department (OPD) in selected hospital of Udupi district, Karnataka” was carried out at Kasturba Hospital Manipal by Merlin K Kunjumon.

The objectives of the study were to assess the knowledge on urolithiasis among patients attending Urology and Medicine OPD by using a structured knowledge questionnaire, identify the risk factors of urolithiasis among patients attending Urology and Medicine OPD by using a semi structured questionnaire, to find the association between risk factors and urolithisasis, find the association between the knowledge and the risk factors and to find the association between risk factors and selected demographical variables.

The conceptual framework of the study was based on Fish bone model of Ishikawa (1968).

A case control study design was used for the study. The sample was participants who have attended Urology OPD with urolithiasis as cases and patients who attended Medicine OPD without urolithiasis as control at Kasturba Hospital Manipal. Nonprobability purposive sampling technique was used to recruit the subjects for the study.

Data collection instruments used for the study were demographic proforma, structured knowledge questionnaire on urolithisasis and semi structured questionnaire to identify the risk factors of urolithisasis. To ensure the content validity, the

instruments were submitted to five experts. The instruments were pretested among five OPD patients and the reliability was also established. The pilot study was conducted among 20 participants (10 cases and 10 controls) which revealed the feasibility of the study design.

Administrative permission was obtained from the Dean, MCON Manipal, Institutional Research Committee, MCON Manipal, Institutional Ethics Committee, KH, Manipal (IEC 762/2017), CTRI registration- CTRI/2018/01/011634, Head of the Department of Urology and General Medicine, Medical Superintendent, Kasturba Hospital and informed consent was taken from the participants. The data were collected from 484 participants (242 cases & 242 controls) between 29th December 2017 and 16th March 2018. Purpose of the study was explained and informed consent was taken from participants who were willing to participate in the study. Research tools such as demographic proforma, knowledge questionnaire on urolithisasis and risk factor assessment were administered and data were collected.

The data gathered was coded and analysed using SPSS version 16. Descriptive statistics and inferential statistics were used to analyse the data. The study revealed that most 149

(61.6%) of the participants were in the age group of 41-65 years, 179 (74%) were males. Most 182 (75.2%) of the cases and 176 (72.7%) of the controls were belonging to Hindu religion. The occupation was business for 73 (30.2%) and 93 (38.5%) of cases and controls respectively. Majority 193 (79.7%) of cases and 211 (87.2%) of control group had family income of RS. 10001-50000 per month. Most 141 (58.3%) of cases and 135 (55.8%) of controls were in the category of normal BMI i.e.

18.5 to 24.9 Kg/m2

The knowledge was above mean for 125 (51.6%) of cases and 108 (44.6%) of control group participants. Both cases and controls obtained maximum score in the area of signs and symptoms. Study found that there is significant association between urolithiasis and risk factors such as consumption of tea (x2=7.837, p=.005), duration of blood pressure

(x2=10.732, p=.030), frequency of pickle intake in a week (x2=14.236, p=.007), salted nuts

(x2=16.34, p=.001), condiments (x2=8.065, p=.003), frequency of meat intake in a week (x2=19.678, p=.001). Factors like intake of salted nuts (OR=2.139, CI=1.112, 4.113) has an

association with the risk of urolithiasis. In contrast, intake of tea (OR=.463, CI=.259, .827), intake of pickle (OR=0.762, CI=.629, 0.923) and milk products (OR=0.485, CI=.310, 0.759) were associated with reduced risk for urolithiasis. There is significant association between knowledge and risk factors of urolithiasis such as consumption of tea (x2=9.75, p=.002),

intake of pickle in a week (x2=18.32, p=.001), salted nuts (x2=21.315, p=.001) and milk

products (x2=11.59, p=.001). There is significant association found between consumption of milk products and selected demographic variables such as education (x2= 12.540, p=.004) and area of living (x2=5.458, p=.049), intake of pickle in a week and selected demographic variables such as age (x2=12.989, p=.011), education (x2=43.831, p=.001), and area of living (x2=27.630, p=.001) and consumption of tea with occupation x2=11.742, p=.008) and education i.e. (x2=8.302, p=.034).

Thus the study concluded that patients who are diagnosed as urolithisasis have more knowledge on urolithisasis. The factor which is responsible for more risk of getting urolithiasis is intake of salted nuts. Other factors such as consumption of tea, intake of pickle in a week and consumption of milk products are less risk to develop urolithisasis.

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