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Frequency of Hyperuricemia Inpatients with Backache in General Population

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ABSTRACT

Objective: To determine frequency of hyperuricemia in patients with backache in general population and to compare the results with international studies. **Study Design:** cross sectional Descriptive Case Series. **Place and Duration:** In outdoor patients of medicine department Allied hospital Faisalabad, from 01-08-2016 to 31-01 -2017. **Methodology:** Adult patients of either gender with low backache were Included in the study. Patients of chronic renal failure and osteomalacia patients were excluded. Nonprobability consecutive sampling technique was used. After enrolment of patients according to criterion an informed consent was taken. Uric acid level was checked in all patients. Uric acid level 4 to 5.7mg/dl for females and 4-7.0mg/dl for males were taken as normal. **Results:** We included 100 patients. Age ranged from 12-80 years (mean =40.50±15.2years). Out of these100 patients 17% patients were having hyperuricemia. Among patients regarding age distribution 57% were below age 40 and 43% were above age 40. In above 40 years age group hyperuricemia was seen in 76.47%(13pts) In below age 40 years group 23.53% (4pt) had hyperuricemia. The p value is (.002) significant indicating an important relationship between age above 40 and hyperuricemia. Out of 100 patients regarding gender distribution 54 %were females and 46 % were males. Amongst 17%patients having hyperuricemia 64.7 %(11pt) were female and 35.3 % (6pt) were male and P value regarding gender distribution was 0.331. **Conclusion:** hyperuricemia is common in Pakistani population and needs to be considered in most of patients with backache especially females who are more predispose to this condition.

Keywords: Hyperuricemia, Backache, Females

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INTRODUCTION

Hyperuricemia is often due to under secretion by the kidneys and 70% of uric acid is excreted by kidneys through the proximal kidney tubules. There has been ongoing research of hyperuricemia associated with backache and generalized body aches and pains.[1] Backache is very common symptom in general population and is an important of absence from work. Hyperuricemia is also very important finding seen in patients with backache.[8] The epidemiological data regarding hyperuricemia and backache is limited. That is why it is important to see relationship of hyperuricemia with backache. About 8.3 million USA adults were affected by gout and hyperuricemia according to data in 2007-2008.Hyperuricemia and gout is associated with high economic burden.[6] Backache is a common problem in our society. In many of these patients cause may be taken as mechanical.

We conducted this study in our community to look for hyperuricemia in general patient with backache so that we can treat hyperuricemia in general population to improve health of our society.

METHODOLOGY

Either gender of adult patients with backache were included. This study was conducted in outdoor patients of Medicine department, Allied hospital Faisalabad over a period of 6 months from August2016 to 31 Jan 2017. Non-probability consecutive sampling technique was used.

Patients known to have gout, renal disease and osteomalacia were excluded in this

study. After selection of patients per criterion, informed consent was taken. Then a brief history regarding demographic details, backache was taken and a thorough examination was conducted. Patient's Uric acid levels were done. Uric acid level 4mg /dl to 5.7mg/dl for females and 4-7.0mg/dl for males were taken as normal in this study. After the data collection was accomplished, results were analyzed by SPSS version21.

RESULTS

Total number of patients was 100. There were 54% females and 46%males. Age of patients ranged 12-80 years (mean = 40.50±15.2 years). Total number of 17%hadhyperuricemia amongst which 67.47% were female and 32.53% were males and P value regarding gender distribution was (0.331).

In our data. Amongst 100 patients 57% were below age 40 years and 43% were above age 40 and in above 40 years age group hyperuricemia was seen in 76.47%(13pts) In below age 40 years group 23.53% (4pt) had hyperuricemia. The p value is (.002) significant indicating an important relationship between age above 40 and hyperuricemia.

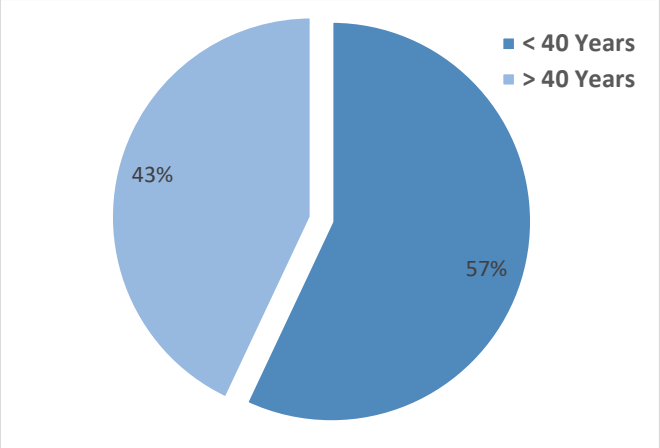

Figure 1: Age distribution

Table 1: Age distribution

		age distribution		Total
		≤ 40 years	> 40 years	
hyperuricemia	yes	4 7.0%	13 30.2%	17
	no	53 93.0%	30 69.8%	83
Total		57	43	100

P value = 0.002

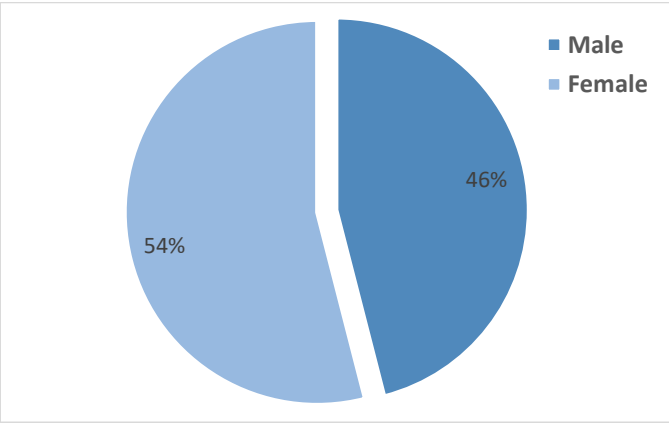

Figure 2: Gender distribution

Table 2: Gender distribution

		Gender		Total
		Male	Female	
hyperuricemia	yes	6 13.0%	11 20.4%	17
	no	40 87.0%	43 79.6%	83
Total		46	54	100

P value =0.331

DISCUSSION

Multiple studies have demonstrated the association of hyperuricemia and backache especially in females[4,5,8,9,10,11,12,13,14].

In a study conducted by Naeema Afzal, et al at Sheikh Zaid postgraduate Federal medical institute of Lahore. This study was conducted on 36 patient ages between 25-60 years in sheikh Zaid hospital Lahore and 25 % (9) of patients were found to having hyperuricemia almost comparable to our finding with 17 % of patients with high levels of uric acid.[1]

In another study conducted by Lindsay. Macfarlane and Seoyoungin review of modifiable and non-modifiable risk factors in gout patients. in this review of study done in Maori population in New Zealand showing hyperuricemia found to be in 27.1% males and 26.6% in females respectively which is also comparable to our study showing 17 % patients having hyperuricemia.[2] difference between 27.1% and 17 % with hyperuricemia may be due to regional factor in population under study.

In this review article another population Hmong group in southernchina was reviewed and it was showing having gout in 6.1 % Hmong group .although it is showingless percentage compared to our 17% population with hyperuricemia. That may be regional difference between thetwo populations.

In large study by quilangLiu et al on study of gout form data of 18358 patients from primary health clinics in Auckland. Diagnosis of gout was done by clinical physicians in clinical records and there were 2278/18358 (15.1%)patients supporting our results showing 17%of patients with hyperuricemia.[5]

In other study by Winnard D, Wright C et al in Aotearoa on prevalence of gout in New Zealand was 2.89%in population under study and because these patients only with gout were included and asymptomatic patients are not included. That may be reason for differencein frequencyof 2.89 %age of patients compare to our study 17%.[4]

Almost every sixth patient with backache was having hyperuricemia in our study.We can conclude that hyperuricemia should checkin all patients.

CONCLUSION

hyperuricemia is common in Pakistani population and needs to be considered in most of patients with backache especially females who are more predispose to this condition.

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