

Study of Gouty Patients based on Gender, Age & Eating Habits in Kashmir

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Abstract:

The present study was aimed to study the relationship of gender, age and dietary habits among the patients suffering from Gout in Kashmir. To gather information from 50 samples, Questionnaire was used. The sampling was conducted in OPD of SMHS hospital. The result revealed that among the studied sample 64% were males whereas females constituted 36%. Gout is seen more commonly in females as compared to males. Men develop first attack between the age of 30 and 50, whereas in women, gout attacks usually occur after menopause. For age the results clearly indicated that gout is more prevalent in the age group of 50-60 and constituted 40% of the studied sample. Gout is seen commonly among elderly people. Menopause women have significantly lower risk for gout than men, possibly because of the actions of estrogen. After menopause the risk increases in women. Whereas all the studied samples were non Vegetarian. Samples used to consume non vegetarian food on the daily basis. Non vegetarian diet was one of the main factor responsible for the pain during the Gouty attacks. Multiply joints are affected in only 10-20% of

first attacks. Older people are likely to have Polyarticular gout. Higher levels of meat and seafood are associated with an increased risk of gout.

Key words: urate crystals, disease, elderly, dietary habits, food.

Introduction:

Gout is a true crystal deposition disease. It can be defined as the pathological reaction of the joint or periarticular tissues to the presence of monosodium urate monohydrate crystals. (Christopher et al. 2002, 512-515). In India approximately 3,928,944 people are suffering from gout. Gout is a disease that results from an overload of uric acid in the body. This overload of uric acid leads to the formation of tiny crystals of urate that deposit in the body, especially the joints. Urate is a chemical in the blood. It is made in the body when certain foods are digested. It is usually in the form of a harmless liquid that passes out from the body through urine. But in some people, the amount of urate in the blood builds up. It starts to form tiny crystals which can collect in a joint. The crystals can cause inflammation and pain. About one- third of the uric acid is derived from dietary sources and two- thirds from endogenous purine metabolism. Endogenous purines are made within human cells. Exogenous purines are obtained from food. The process of breaking down purine results in the formation of uric acid in the body. Gout is caused by too much uric acid in the blood. Most of the time, having too much uric acid is not harmful. Many people with high levels of uric acid in blood are too high; the uric acid may form hard crystals in joints. Obesity, drinking too much alcohol, eating too much meat and sea foods, certain illnesses like heart disease, high blood pressure, diabetes and cholesterol. Some medicines such as diuretics (water tablets) for high blood pressure, low doses of aspirin can cause gout (Atkinson et. al 200417-22). The study carried out by Atkinson et. al (2005, 76-79), stated that the incidence of gout

decreased with increasing intake of dairy products, the level of consumption of purine rich vegetables and the total purine intake were not associated with an increased risk of gout. Higher levels of meat and seafood are associated with an increased risk of gout; whereas high level of consumption of dairy products is associated with a decreased risk. Vegetarian food and dairy products reduce the risk of gouty arthritis. Prevention of attacks requires modification of lifestyle factors such as weight loss, moderation in the consumption of alcohol and meat and withdrawal of drugs known to cause elevated uric acid levels (Rosa et.al. 2005).

Rationale / Justification:

According to Panda (2006), Gout is the most common cause of inflammatory arthritis in men aged more than 50, affecting approximately 1-2% of adult men in the Western world. The incidence of gout is on the rise increasing longevity, dietary trends, obesity, metabolic syndrome, and hypertension. By far the commonest cause of hyperuricemia (that accounts for 90% patients with gout) is decreased renal clearance. Dietary intake and nutrients of the gouty patients (using 24 hour recall method) are studied and then results are compared with standards (ICMR) in reference to their Gender, Age and eating habits.

Review of Related Literature:

According to Wallace (2004, 1582-7), prevalence of gout/ or hyperuricemia in the overall study population increased during the last 10 years period. When stratified by age, there were increases in prevalence among groups over the age of 65 years in both the sexes. Although gout prevalence increased in both sexes over the 10 years period, men still had most of the burden of disease. In younger than 65, men had four times higher

prevalence than women (4:1), but in the older age groups (>65), gender gap narrowed to women to every 3 men with gout/ or hyperuricemia (3:1 ratio). Schumacher (2005, 12-15) defined gout as an incident and common form of inflammatory arthritis, and is the most common inflammatory arthritis among men. Gout is a chronic disease caused by an uncontrolled metabolic disorder, hyperuricemia, which leads to the deposition of monosodium urate crystals in tissue. Hyperuricemia is caused by an imbalance in the production and excretion of urate i.e. overproduction, underexcretion or both. Underexcretion is the most common cause, thought to account for 80-90% hyperuricemia.

Thorough study carried out by Choi H K et.al. (2004, 390-395) showed that the consumption of meat, particularly red meat, significantly increased risk of gout, and that consumption of all types of sea foods like tuna fish, lobster, shrimp increased the risk of gout. Notably, no increased risk was seen with the consumption of purine rich vegetables, which include peas, beans, mushrooms, cauliflower and spinach. According to Mahajan (2007, 49-51), gout is an important cause of arthritis and the prevalence is on the increase. The incidence of gout in India varies in population with an overall prevalence of less than 1 to 15.3%. Gout once called the “disease of kings”, is also seen in women, especially after menopause. The male female ratio changes as estrogen status changes. Normally male: female ratio is 7:1 to 9:1, women before menopause is female> male, in the older age groups above 65 years- male: female- 3:1 ratio and after 80 years of age females are compared to males. Similarly study carried out by Marcello et.al. (2007), revealed that elderly onset gout, defined as a disease with onset at the age 65 years or over, shows relevant epidemiological, clinical and therapeutic differences from the typical middle age form. The main differences are the more frequent chronic Polyarticular onset with hand involvement, the unusual localization of tophi on osteoarthritis (O.A) nodes, the increased

female/male ratio and the frequent association with drugs that decrease renal urate excretion. EOG has recently been confirmed as the most common inflammatory arthropathy in older people.

Researchers suggest that taking vitamin C supplements at the levels of less than 2000mg/day may be a safe effective way to prevent gout. Vitamin C significantly decreases the uric acid levels (Jennifer Warner 2009, 524-529).

Methodology:

The study was undertaken to assess the dietary pattern of patients suffering from Gout.

50 patients including both males and females of any age group were selected randomly and purposively for the present study. The sampling was conducted in OPD of SMHS, Srinagar. After collecting information respondents were provided with certain dietary recommendations which would be beneficial for them.

During the study, a structured questionnaire cum interview schedule was used to collect information from the patients. The purpose is to gather information from them. It is a quick and efficient way to gather information from target no. of people. After the required information was gathered, the data was carefully analyzed and interpreted.

Results:

Table No. 1.1: Distribution of sample as per age.

Age (in years)	No	%
30-40	4	8
40-50	9	18
50-60	20	40
60-70	15	30
70-80	1	2
80-90	1	2

Total	50	100
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Table 1.1 revealed that age-wise distribution of the sample and the results clearly indicate that gout is more prevalent in the age group of 50-60 and constituted 40%.

Fig. 1.1: Distribution of samples as per gender.

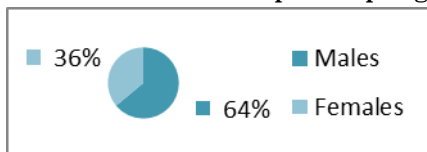


Fig 1.1 revealed that among the studied sample 64% were males whereas females constituted 36%.

Fig. 1.2: Distribution of sample according to eating habits (before diagnosis).

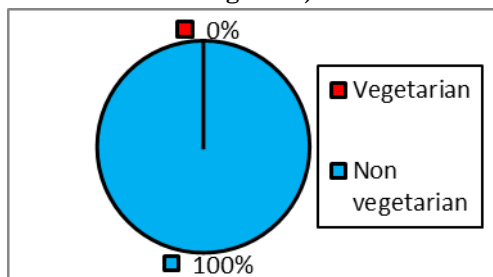


Fig 1.2 revealed the type of diet consumed by the studied sample and the result showed that 100% of the samples were non-vegetarians.

Discussion:

Gout is a disease that results from an overload of uric acid in the body. This overload of uric acid leads to the formation of tiny crystals of urate that deposit in the body, especially the joints. Men are significantly at a higher risk for gout. Gout typically strikes after 20-40 years of persistent hyperuricemia.

So, men can develop first attack between the age of 30 and 50. In women, gout attacks usually occur after menopause. Gout is more prevalent in Western world. In India, approximately 3,928,944 people are suffering from gout.

It was concluded that among the study group, males formed the majority of the sample group, whereas women suffering from Gout were low in number as compared to males.

Majority of the patients were found in the age group 50-60 years. Gout was found to be more common among elderly people. Whereas, all the samples were Non Vegetarian. Consumption of meat & fried foods daily was found to be one of the reasons for causing gout.

Recommendation:

Gouty patients should maintain an ideal body weight. Avoid beer and alcoholic drinks. Red meat, meat extracts and yeast should be avoided. Complex carbohydrates like whole cereals, bread etc should be included in your diet. Restrict fatty foods as cream, butter etc. Include lot of salads and fruits in your diet.

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