Original Research Article

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Prevalence of osteoarthritis patients in South Indian hospital

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ABSTRACT

Background: Osteoarthritis is multifactorial in aetiology. Both systemic factors (e.g. age, sex, genes) and local factors (e.g. muscle weakness, joint deformity) appear to influence the risk of individual joints developing the disease. **Methods:** Total 60 patient's prospective data was collected in S.V. Ayurvedic Medical College and Hospital. Collected data were family history, physical activity, illness, addiction, digestive power etc., in patients with osteoarthritis.

Results: The study showed 53.33% of previous family history of osteoarthritis and 46.66% were no family history of osteoarthritis. 76.66% gradual disease onset and 23.33% were insidious onset. 100% were having joint pain with swelling. 50% were average digestive power, 36.66% good and 13.33% poor. 30% patients were having addiction of alcohol, 16.66% smoking and alcohol, 16.66% smoking, 3.33% tobacco and 33.33% were no addiction. 66.66% patients were having irregular bowel habit and 33.33% was regular. 41.66% sedentary, 40% active and 18.33% were moderately active. 40% illness was observed during the period of 0-6 months, 30% 1-2 years, 16.66% 6-12 months and 13.33% were 2-5 yrs. 60% cold season and 40% were other seasons.

Conclusions: Present study demonstrated that, incidence of osteoarthritis was very high especially in earlier family history of osteoarthritis, gradual disease, joint pain, average digestive power, No addiction, bowel habit Irregular, sedentary, illness during the period of last 6 months and cold season patients.

Keywords: Osteoarthritis, Prevalence, South India

INTRODUCTION

Osteoarthritis is multifactorial degenerative diseases. It is several factors involving osteoarthritis mainly systemic factors were age, sex, genes and local factors were muscle weakness, joint deformity and specific aetiological factors are still unknown, but may cause mechanical overloading, failure of the chondrocyte-controlled internal remodelling system and extra cartilaginous factors. The prevalence is very high especially in elder people. It is involves joint lining, cartilage, ligaments and bone, and symptomatic treatment by analgesics, NSAIDs, opioids, chondroitin sulphate, glucosamine, intraarticular corticosteroids, intraarticular

hyaluronic acid.³ Osteoarthritis is the fourth most common predictor of problem in women and eighth common predictor was men in global population.⁴ Knee arthritis is the one of the grater reported site of musculoskeletal pain ⁵Developing countries people with the risk of higher physical activities even with less prevalent to obesity. Due to less musculoskeletal surgeries and people lives with severe joint pains in older years while genetic, obesity and smoking are the major risk factors.⁶⁻⁹ Earlier studies say that, Common rheumatological problem with joint disease in prevalence of 22% to 39% in India.¹⁰ Prevalence of osteoarthritis is reported to be in the range of 17 to 60.6% in India.¹¹ Present study deigned to investigate prevalence of

osteoarthritis patients in Department of Dravyaguna, S.V Ayurvedic Medical College, South India.

METHODS

The present study evaluation of clinically based prospective and it was carried out in S.V. Ayurvedic Medical College and hospital, Tirupathi, Andhra Pradesh in the period from Jan 2014 Dec 2015 after obtain institutional ethical committee approval.

All the patients were followed up at interval of 15 days. Total duration of treatment was 3 months. Collected data prevalence of osteoarthritis among patients in hospital (family history, physical activity, illness, addiction, digestive power etc).

Present study consists of 71 cases of osteoarthritis patients selected from the Department of Dravyaguna of T.T.D's S.V. Ayurvedic Hospital, Tirupati. Out of 71 patients, 11 cases did not turn up for follow up, thus the present study population include only 60 patient's data collated.

Inclusion criteria

- Patient's age group of 31-70 years was selected.
- Patient with osteoporosis and osteophytic changes.
- Obese patients.
- Patients with history of Trauma.
- Patients with Endocrine disorders mainly menopausal women.

Exclusive criteria

- Patients age below 31 and above 70 years
- Patients suffering from Carcinoma and psoriatic arthritis.
- Patients suffering from Ankolysing arthritis.
- Patients suffering from Poliomyalgia and Rheumatoid arthritis.
- Patients suffering from Tuberculosis.
- Patients suffering from Syphilitic arthritis.

RESULTS

It is evident from below table that most of the patients was having family history of osteoarthritis (53.33%) and 46.66% showed no family history of osteoarthritis.

In the present study gradual disease onset found in 76.66% of patients followed by insidious onset in 23.33% of patients (Table 2).

It is observed from Table 3 that 100% patients were seen with joint pain followed by joint swelling, tenderness and others problems each (86.66%).

It is evident from Table 4 that maximum patients have average digestive power (50%), followed by good (36.66%) and poor (13.33%).

Table 1: Distribution of patients according to family history.

Family History	Total	%
Positive	32	53.33
Negative	28	46.66
Total	60	100

Table 2: Distribution of patients according to pattern of onset.

Onset	Total	%
Gradual	46	76.66
Insidious	14	23.33
Total	60	100

Table 3: Distribution of patients according to chief complaints with osteoarthritis.

Chief Complaints	Total	%
Joint pain	60	100
Joint swelling	52	86.66
Tenderness	52	86.66
Others	52	86.66

Table 4: Distribution of patients according to digestive power.

Digestive power	Total	%
Good	22	36.66
Average	30	50
Poor	8	13.33
Total	60	100

Table 5: Distribution of patients according to addiction wise.

Addiction	Total	%
No addiction	20	33.33
Tobacco	2	3.33
Smoking	10	16.66
Alcohol	18	30
Tobacco + Smoking	0	0
Smoking + Alcohol	10	16.66
Total	60	100

Table 6: Distribution of patients according to bowel habits.

Bowel Habit	Total	%
Irregular	40	66.66
Regular	20	33.33
Total	60	100

Table 7: Physical activity wise distribution of patients.

Physical activity	Total	%
Active	24	40
Sedentary	25	41.66
Moderately active	11	18.33
Total	60	100

Table 8: Distribution of patients according to duration of illness.

Total duration of illness	Total	%
0-6 months	24	40
6-12 month	10	16.66
1-2 years	18	30
Above 2 years	8	13.33
Total	60	100

Table 9: Distribution of patients according to season wise.

Season	Total	%
Cold	36	60
Others	24	40
Total	60	100

It is clear that most of the patients have addiction of Alcohol (30%) followed by Smoking and alcohol (16.66%), smoking (16.66%) and tobacco (3.33%). 33.33% patients did not have any addiction (Table 5).

It is evident from Table 6 that bowel habit of maximum patients was Irregular (66.66%) followed by regular (33.33%).

Table 7 shows that most of the patient were in sedentary group (41.66%) followed by active (40%) and moderately active (18.33%).

It is observed that total duration of illness was more in 0-6 months (40%) cases followed by 1-2 years (30%), 6-12 months (16.66%) and 2-5 yrs (13.33%) (Table 8).

It was observed that maximum number of patients i.e. 60% was suffering in cold season while 40% were observed in other seasons (Table 9).

DISCUSSION

In present study total 60 interviewed and clinically diagnosed osteoarthritis patient, those are eligible and based on the inclusion criteria, data was collated with the help of consent form either gender visited in the hospital. Incidence of osteoarthritis more in female than the males, body mass index, family history, and previous injury, nature of work, physical activities, community lifestyle, obesity and occupation of work practices were reported in earlier studies especially in osteoarthritis. 12-14

Osteoarthritis is one of the largest public health problem.¹⁵ Nearly 80% of people in the age group between 35 and 50 years develop signs and symptoms of the disease. 16 Estimation of prevalence of osteoarthritis across the global populations is difficult, data from the National Health and Nutrition Examination Survey (HANES) says that obese women had approximately 4 times risk of knee OA as compared with non-obese women; for obese men, the risk was nearly 5 times higher.¹⁷ There is a necessary to take appropriate steps to increase awareness regarding osteoarthritis in the community were daily exercise, obesity, adequate treatment and physiotherapy. 18 Present study analysis and demonstrated that prevalence was higher genetically (family history of osteoarthritis) with joint pain, Gradual disease, average digestive power, No addiction, bowel habit Irregular, sedentary, illness during the period of last 6 months and cold season patients.

CONCLUSION

Present study demonstrated that, incidence of osteoarthritis was very high especially in earlier family history of osteoarthritis, gradual disease, joint pain, average digestive power, no addiction, bowel habit irregular, sedentary, illness during the period of last 6 months and cold season patients.

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Institutional Ethics Committee

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