

Clinical and socio-demographic profile of treatment on osteoarthritis patients in Tirupathi, Andhra Pradesh, India

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ABSTRACT

Background: Osteoarthritis is a chronic degenerative joint disease and it is slowly progressive with signs and symptoms being pain. It is a common cause of disability affecting 60-70% of the population in the age of 60 years. It usually affects the hand, large weight bearing joints, often the knee and the hip.

Methods: A prospective study was carried out in S.V Ayurvedic Medical College and Hospital. Collected the data of Socio-demographic and risk factors (age, diet, history, marital status, religion, occupation etc.) during the treatment of osteoarthritis among the patients in hospital.

Results: The data reveals that majority of the patients belongs to the age group of 51-60 (43.33%) and 41-50 years (33.33%) followed by 61-70years (16.66%), 31-40 years (6.66%), and 70 % of females, 30% patients were Males in present study. 90% were married 10% were widows. 63.33% of Hindu, 23.33 % were Muslims and only 13.33% were Christians. 40%, of labour, 33.33% Businessmen, 13.33% Servicemen and 13.33% House wives. 53.33% rural, 46.66% urban area. 50% were belonging to middle class while 23.33% were very poor status, 16.66% Rich only 10 % patients were from upper middle class families. 43.33% were Primary level education, 36.66% were illiterates, 10% up to Graduation, 6.66% Post-Graduation and 3.33% up to Matriculation. 63.33% mixed diet, 36.66% vegetarian.

Conclusions: Present study reveals that, incidence of osteoarthritis was very high especially in elder female, married, Hindu, labour, rural area, middle class with very poor, primary education, mixed diet (vegetarian with non-vegetarian) patients.

Keywords: *Cissus quadrangularis* linn, Demographic profile, Osteoarthritis, Tirupathi, *Zingiber officinale* rocs

INTRODUCTION

Osteoarthritis is one of the major public health problems especially in elder people. Osteoarthritis is a degenerative joint disorder with the symptoms of Joint Pain, Joint Swelling, Restricted and Painful Movements of the Joints and Joint Instability. It is a slow progressive disorder occurs usually after the age of 40 years. Defining osteoarthritis can be problematic. The condition may be considered a

heterogenous group of joint disorders characterized pathologically by focal destruction of articulate cartilage, sub-chondral bone changes (including micro-fracture and cyst formation), and osteophyte formation. Osteoarthritis another name also called it as 'osteoarthritis or 'degenerative joint disease,' is the most common cause of arthritis.¹ 100 million people worldwide suffer from Osteoarthritis in Global population; it is also a one of the most common causes of eighth leading disability in

osteoarthritis.² Prevalence of Knee Osteoarthritis increases elder women's, approximately 11% of women suffering from knee Osteoarthritis over the age of 60 years. Most of the knee Osteoarthritis treated by general physicians rather than rheumatologists.³ Age is the most powerful risk-factor in osteoarthritis.⁴ The prevalence of knee OA was very high in aged people.⁵ Earlier studies shows that the prevalence of osteoarthritis between the ages of 30 to 65 years. Men are affected more often than women among those aged 55 years.⁶

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.

All the patients were followed up at interval of 15 days. Total duration of treatment was 3 months. Collected data of Socio-demographic and risk factors of osteoarthritis among patients in hospital (age, diet, Marital status, religion, occupational etc.,).

Study design

Selection of patients

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 these 71 patients, 11 cases did not turn up for follow up, thus the present study population include only 60 patients. According to treatment schedule patients were divided into 3 Groups: Group A; treatment of *Cissus quadrangularis* linn, Group B; treatment of *Zingiber officinale* rocs, Group C; treatment of *Cissus quadrangularis* linn combined with *Zingiber officinale* rosc. For osteoarthritis.

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

Patients between the age group of 30-70 years were selected for the present clinical study. The data reveals that majority of the patients belongs to the age group of 51-60 (43.33%) and 41-50 years (33.33%) followed by 61-70years (16.66%), and 31-40 years (6.66%). This shows that osteoarthritis is more common in the age group of 51-60 years (Table 1).

Table 1: Distribution of patients according to age.

Age in years	No. of patients			Total	%
	Group-A	Group-B	Group-C		
31-40	2	0	2	4	6.66
41-50	6	8	6	20	33.33
51-60	8	10	8	26	43.33
61-70	4	2	4	10	16.66
Total	20	20	20	60	100

In the present study, maximum number of Patients i.e. 70 % were of Females and remaining 30 % patients were Males (Table 2).

Table 2: Distribution of patients according to sex.

Sex	No. of patients			Total	%
	Group-A	Group-B	Group-C		
Male	8	4	6	18	30
Female	12	16	14	42	70
Total	20	20	20	60	100

As evident from the table, majority of cases were married (90%) and remaining 10% were widows (Table 3).

Table 3: Distribution of patients according to marital status.

Marital status	No. of patients			Total	%
	Group-A	Group-B	Group-C		
Single	0	0	0	0	0
Married	16	18	20	54	90
Widow	4	2	0	6	10
Widower	0	0	0	0	0
Total	20	20	20	60	100

In this study Labour were more in number i.e. 40 %, followed by Businessmen (33.33%), Servicemen (13.33%) and House wives (13.33%). This shows Osteoarthritis is more common in Labour class. (Table 4).

Table shows that maximum i.e. 50% patients were belonging to Middle class while 23.33% were from very poor status, and 16.66% patients were belonged to Rich

only 10% patients were from Upper middle class families (Table 5).

Table 4: Distribution of patients according to occupation.

Occupation	No. of patients			Total	%
	Group-A	Group-B	Group-C		
Housewife	4	2	2	8	13.33
Labour	8	10	6	24	40
Business	6	6	8	20	33.33
Service	2	2	4	8	13.33
Total	20	20	20	60	100

Table 5: Distribution of patients according to socio-economic status.

Socio-economic status	No. of patients			Total	%
	Group-A	Group-B	Group-C		
Very poor	6	2	6	14	23.33
Middle	10	12	8	30	50
Upper middle	0	4	2	6	10
Rich	4	2	4	10	16.66
Total	20	20	20	60	100

As shown in table, maximum number of Patients i.e. 43.33 % were having the education upto the Primary level followed by 36.66 % patients were illiterates, 10% of Patients were having education up to Graduation, 6.66 % patients had completed their Post-Graduation and 3.33% patients were having education up to Matriculation (Table 6).

Table 6: Distribution of patients according to education wise.

Education	No. of patients			Total	%
	Group-A	Group-B	Group-C		
Illiterate	6	12	4	22	36.66
Primary	12	4	10	26	43.33
Matriculation	2	0	0	2	3.33
Graduation	0	4	2	6	10
Post graduate	0	0	4	4	6.66
Total	20	20	20	60	100

It is evident from the Figure 1 that majority of cases were Hindu (63.33%) while remaining patients i.e. 23.33% were Muslims and only 13.33% were Christians.

Figure 2 shows that majority of cases belonged to Rural area (53.33%) followed by urban area (46.66%). It is clear from Figure 3 that maximum patients were taking mixed diet (63.33%), followed by vegetarian (36.66%).

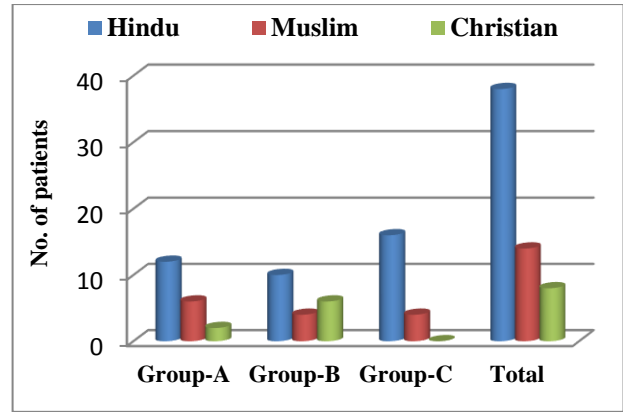


Figure 1: Distribution of patients according to religion.

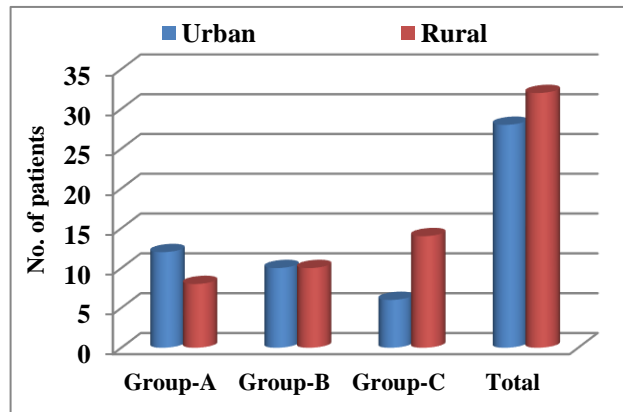


Figure 2: Distribution of patients according to habitat.

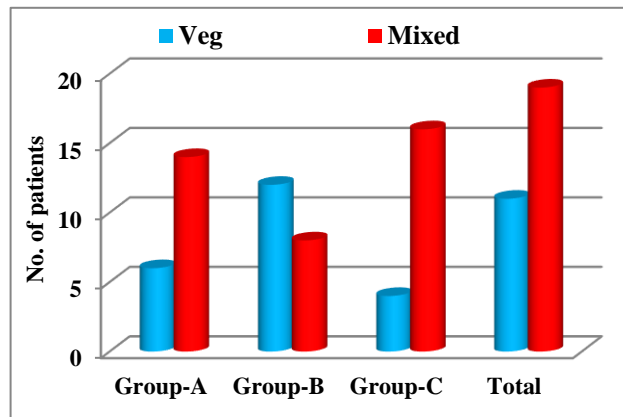


Figure 3: distribution of patients according to dietary habit.

DISCUSSION

Osteoarthritis is a chronic degenerative joint disease especially in the older age, usual signs and symptoms being pain, enlarged and deformed joints. It is a most common cause of disability affecting nearly 60-70% of the population in the older age people with the age of 60 years. It usually affects the hand and large weight bearing joints, often the knee and the hip.⁷ In the global population prevalence for sign and symptomatic osteoarthritis is 9.6%

men and 18% in women. In the earlier studies says that, risk factors in high risk population include female gender, old age, overweight, history of previous injuries or surgeries on the knee.⁸⁻¹⁰ Among females, the incidence of osteoarthritis was high especially during menopausal age period. Several studies have been says to loss or less of oestrogen at the time of menopause increases the women's risk of getting osteoarthritis. The prevalence and the distribution pattern of the osteoarthritis disease vary common depending on the geographical distribution. A clinically hospital based study was carried out with a purpose to assess the socio demographic and risk factors of osteoarthritis among the study population.

CONCLUSION

Present study reveals that, the incidence of osteoarthritis was very high especially in elder female, married, Hindu, labour, rural area, middle class with very poor, primary education, mixed diet (vegetarian with non-vegetarian) patients.

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Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

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