

STUDY OF DIETARY HABITS AMONG OSTEOARTHRITIC PATIENTS ATTENDING GERIATRIC DEPARTMENT OF ALEXANDRIA MAIN UNIVERSITY HOSPITAL

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INTRODUCTION

Osteoarthritis (OA) is a long-term chronic disease characterized by the deterioration of cartilage in joints which results in bones rubbing together and creating stiffness, pain, and impaired movement. The disease most commonly affects the joints in the knees, hands, feet, and spine and is relatively common in shoulder and hip joints. While OA is related to ageing, it is also associated with a variety of both modifiable and nonmodifiable risk factors, including: obesity, lack of exercise, genetic predisposition, bone density, occupational injury, trauma, and gender. Dietary habits can be contributing factor in the occurrence of OA. Dietary Habits are the habitual decisions of individuals or group of people regarding what foods they eat. Proper dietary choices require the consumption of vitamins, minerals, carbohydrates, proteins and fats. Dietary habits and choices play a significant role in human health

AIM OF THE WORK

The aim of this research was to study BMI and dietary habits among patients with osteoarthritis in geriatric department in Alexandria Main University Hospital, with specific objectives including determination of associations between dietary habits and osteoarthritis, as well as dentifying the relation between BMI and osteoarthritis in the geriatric patients.

SUBJECTS AND METHODS

Study setting: The study had been conducted in Geriatric department at Alexandria Main University Hospital (AMUH).

Study Design: A Cross-sectional epidemiological survey was conducted to achieve the purpose of the study.

Target population: The target population of the study was patients attending the Geriatric Department at AMUH on the selected random days of the field work based on the calculated sample size with inclusion criteria of age > 60 years old, both sexes, diagnosed with osteoarthritis with different grades and willing to participate in the study. The exclusion criteria were younger patients (aged ≤ 60 years) and secondary osteoarthritis due to conditions such as trauma, congenital joint abnormalities, diseases that cause inflammation such as rheumatoid arthritis

Sampling: All geriatric patients attending out patient clinic of Geriatric department at AMUH fulfilling the previously identified inclusion criteria during the field work period (6 months) were included in the study sample after obtaining their informed consent.

Data collection tools:

Interview schedule: - Which includes data about: Sociodemographic data, Medical History, Dietary history, Physical activity. A transfer sheet was used to record existing information in the geriatric department medical sheet. - Anthropometric measurements and BMI

RESULTS

The study revealed a statistically significant association between OA and dietary habits as illustrated in the following table

Table 1: Association of dietary habits and degree of osteoarthritis.

Diet habits	Degree of osteoarthritis						Total “n=168”	X² P value
	Mild “n=32”		Moderate “n=43”		Severe “n=93”			
	No.	%	No.	%	No.	%		
How many teaspoons of sugar you consume per glass of beverage?								
None	16	50.0	12	27.9	13	14.0	41	17.93 0.001*
1	12	37.5	26	60.5	61	65.6	99	
2	4	12.5	5	11.6	19	20.4	28	
What type of fats you usually use in cooking your daily food?								
Olive oil	4	12.5	0	0.0	0	0.0	4	12.56 0.0113*
Plant oil (corn or sunflower)	16	50.0	10	23.3	31	33.3	57	
Processed ghee	0	0.0	2	4.7	8	8.6	10	
Natural ghee	12	37.5	12	27.9	48	51.6	72	
Natural butter	0	0.0	19	44.2	6	6.5	25	
Do you consume caffeinated beverages (tea, coffee, Nescafé)?								
No	12	37.5	4	9.3	2	2.2	18	31.2 0.001*
Yes	20	62.5	39	90.7	91	97.8	150	
No. of servings of vegetables/day								
1-2 servings /day	6	18.8	31	72.1	45	48.4	82	16.98 0.002*
3-4 servings/day	10	31.3	11	25.6	48	51.6	69	
5 or more servings/day	16	50.0	1	2.3	0	0.0	17	
Fish consumption/week								
Once/week	2	6.3	2	4.7	0	0.0	4	8.98 0.016*
2-3 times/week	18	56.3	29	67.4	21	22.6	68	
Once/ 2 weeks	12	37.5	12	27.9	72	77.4	96	
Consumption of western diet (fast food) / week								
1-2 times/week	3	9.4	19	44.2	54	58.1	76	12.65 0.013*
1-2 times/2 weeks	8	25.0	22	51.2	39	41.9	69	
1-2 times / month	21	65.6	2	4.7	0	0.0	23	

There was a statistically significant association between OA and anthropometric measurements as shown in (table 2)

Table 2: Association of anthropometric measurements and degree of osteoarthritis.

	Mild “n=32”		Moderate “n=43”		Severe “n=93”		Total “n=168”	X² P value
	No.	%	No.	%	No.	%		
BMI								
Normal (18.5 – 24.9)	8	25.0	0	0.0	0	0.0	8	118.19 0.0001*
Overweight (25– 29.9)	22	68.8	29	67.4	3	3.2	54	
Obese (≥30)	2	6.3	14	32.6	90	96.8	106	
Waist circumference (cm)								
Min. – Max.	82.0-115.0		88.0-130		110.0-140		82.0-140.0	F=18.98 0.0132*
Mean ± SD.	92.3±5.0		98.0±7.01		119.5±6.9		104.8±12.88	
Hip circumference (cm)								F=17.91 0.0174*
Min. – Max.	93.0-122		99.0-135		119.0-155		93.0-155.0	
Mean ± SD.	96.8±7.1		102.3±6.8		125.3±9.5		116.6±11.79	
Waist to hip ratio								
Min. – Max.	0.79-0.89		0.86-1.0		0.89-1.04		0.79-1.04	F=8.25 0.036*
Mean ± SD.	0.82±0.03		0.86±0.04		1.0±0.05		0.89±0.04	

CONCLUSION

Severity of osteoarthritis was higher with increasing age of the patients of the studied group. Knee joint was the most common joint affected. Weight, BMI, waist and hip circumference and waist to hip ratio are important parameters associated with increasing degree of osteoarthritis. Dietary habits had effect on osteoarthritis as low consumption of fruits and vegetables was strongly associated with severe degrees of osteoarthritis and high BMI. Physical activity played a crucial role in ameliorating symptoms of osteoarthritis as regular practicing of physical activity was strongly associated with mild degree of osteoarthritis.