

## **Study of extent the relationship between Obesity and colon diseases in Al-Hakem general hospital in Governorate of Al-najaf Al-ashraff**

**دراسة مدى العلاقة بين الإصابة بالسمنة وأمراض القولون في مستشفى الحكيم العام في محافظة النجف الاشرف**

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### **المستخلص**

تم خلال الفترة من 2008/10/1 ولغاية 2009/5/31 فحص 100 حالة سمنة ممن لديهم زيادة في الوزن من 25-30 كيلو غرام حسب مقياس كتلة وزن الجسم من المراجعين إلى مستشفى الحكيم العام في محافظة النجف الاشرف بحثا عن بعض أوجه العلاقة بين السمنة وأمراض القولون من خلال البيانات المسجلة التي جمعت بواسطة استمارة استبيان . أظهرت نتائج فحص الذكور إصابة 33.1% بأمراض القولون وتحديث قمة الإصابة ضمن الفئة العمرية 30-69 سنة وزيادة وزن بمعدل 27-31 Kg/m<sup>2</sup>, 76.9% مصابين بالسمنة وبمعدل 18-20 Kg/m<sup>2</sup> وغير مصابون بأمراض القولون, 75% لم يكن لديهم فرد من العائلة مصاب بالسمنة, 24.1% لديهم أفراد مصابون بالسمنة و21.9% مصابون بالسكري. أما الإناث فقد بلغت لديهم نسبة الإصابة بأمراض القولون 66.7% وبمعدل زيادة في الوزن 25-30 Kg/m<sup>2</sup>, 22.2% كانت لديهم إصابات عائلية بالسمنة 33.3% من الإناث مصابات بالسكري وتقع قمة الإصابة ضمن الفئة العمرية 40-59 سنة . توصي هذه الدراسة بإنشاء قاعدة بيانات لفئات المجتمع المصاب بالسمنة وعوامل الخطورة المتعلقة بها في العراق لتشخيص المشاكل الصحية المتعلقة بالسمنة.

### **Abstract**

Through the period from 1/10/2008 to 31/5/2009. Check-up 100 obesity case have overweight 25–30 kg/m<sup>2</sup> according to body mass index from patients revises to al- Hakem general hospital in Al-najaf Al- ashraff governorate for searching about some aspects of relationship between obesity and colon disease through the data, which collected and registered by questioner form. The results of male's examination appear infecting 33.1% with colon disease .The preponderance of cases through age group 30-69yrs, with increase in weight 27-31 Kg/m<sup>2</sup>. 79.6% infecting by obesity with out colon disease .75% don't have obesity persons in their family, 24.1% have them family history with obesity and 21.9% diabetes mellitus patient . But in the females, the percentage for infecting with colon disease was 66.7%, with increase in weight 25-30 Kg/m<sup>2</sup>. 22.2% was have family history with obesity .33.3% from females was infected with diabetes mellitus .The preponderance of cases was in the age group 40-59 yrs .The study recommended: prepare – based estimates of obesity and its associated risk factors in Iraq to detection the health problem that be related the obesity.

### **Introduction**

Over the past several decades, the prevalence of obesity among adults and children in the United States has increased dramatically and is now reaching epidemic proportions. The prevalence of overweight and obesity in most developed and developing countries have increased markedly over the past two decades (1). The prevalence of obesity in adults in the United States was 30.5 percent in 1999-2000. 6 million U.S. adults were considered morbidly obesity in 2001. In 2002, an estimated 15% of all children aged (6 – 19) years were overweight (2). Obesity is more common in women, but men are more likely to be overweight (1). Obesity is especially common among African Americans, American Indians, Native Hawaiians, and some Hispanic populations (3). Obesity is the second leading cause of

preventable deaths; smoking is the first (2). Obesity is associated with many significant health problems, including high blood pressure, heart disease, diabetes, stroke, osteoarthritis, sleep apnea, premature death, and decreased quality of life(4)(5). Even modest weight loss can reduce an individual's risk for these diseases and outcomes (6). Obesity is defined as having a body mass index (BMI), (the weight in kg/height in m<sup>2</sup>) of 30 or more. Morbid obesity is defined as having a BMI of 40 or more (35 to 40 with medical problems related to obesity) (7).Overweight is defined as having a body mass index (BMI)of 25 to 29.9 (8).A BMI of 20 to 24.9 is considered normal weight and a BMI under 20 are considered underweight. In children and adolescents, weight above a normal range has different terms: at risk for overweight and overweight (9). Being at risk for overweight is defined as a BMI between the (85- 94%) for age and sex (10).

A higher incidence of depression Obesity contributes to early-onset heart problems (11) and (12). The obesity epidemic is a major contributing factor in the increasing number of people who have diabetes and other health conditions (13). Obesity more than doubles a woman's risk of developing colon cancer or growths that can lead to colon cancer (14), (15), (16). In comparison, report of a World Health Organization (WHO) consultation on obesity at of end 2000 show that the majority of cases in Syria the women was higher prevalence than males especially in age group (46 -65 yrs) (17). The epidemiology relationship between colon disease and obesity in Jordan is similar to that in developing countries but the disease seems more severe than in neighbouring countries (18). Chronic colon disease and their prognosis like some type of obesity is reported to exhibit a milder course and be less extensive in developing countries; mild to moderate forms of chronic colon disease have been reported in as many as 74% of patients from Turkey and 93% of patients from Kuwait (19). In Qatar, about 29.3% of females and 17.4% of males are obese. The primary care physicians have been identified as cost-effective contributors to treatment and prevention of obesity, because of high patient contact rates and the perceived credibility by the public (20) .These study aiming to describe some respects the relationship between obesity and colon disease in Al-najaf Al-Ashraff governorate – Iraq.

**Material and methods**

The cases were diagnosed as colon disease patients. Body mass index, was calculated as the weight in kilograms divided by the square of the height in meters (kg\m<sup>2</sup>).Overweight and obesity were defined according to World Health Organization criteria as a body mass index from 25-29.9 and ≤ 30 (17). To collect data information which be special the sample of study, designed Questionnaire to collection these data.100 sample were collected from out patients in consultant department in Al-hakem general hospital in Al-najaf Al-Ashraff governorate from 1/10/2008 - 31/5/2009 to fined the relationship between obesity and colon disease, and classify the data sampling according the questions of cases history of patients.

<b>Sample of Questionnaire</b>			
<b>Name of patient</b> -----	<b>Age:</b> <input type="text"/>	<b>Sex:</b> <input type="text"/>	<b>Occupation:</b> <input type="text"/>
<b>Education level:</b> -----			
<b>History of patient:</b> -----			
<b>*1 - Do you have increase in weight after colon disease happening.</b>	<b>Yes</b> <input type="text"/>	<b>No</b> <input type="text"/>	
<b>*2 - Do you have any one from your family with obesity.</b>	<b>Yes</b> <input type="text"/>	<b>No</b> <input type="text"/>	
<b>*3 - Do you have another abdominal disease.</b>	<b>Yes</b> <input type="text"/>	<b>No</b> <input type="text"/>	
<b>*4 - Do you have diabetic disease.</b>	<b>Yes</b> <input type="text"/>	<b>No</b> <input type="text"/>	

The total number of patients was 100 which only represented the registered cases from 1/10/2008 to 1/10/2009, with males preponderance 91% compared with females 9%. The cases were most frequent within the age group 49 – 40 yrs 32.9% and least frequent within the age group 79 – 70 yrs 1.1% with the bulk of cases occurring up to the age of 30 -69 yrs for males while the cases were most frequent within the age group 40 -59 yrs 33.3% and least frequent within the age group 70 -79 yrs zero, with the bulk of cases occurring up to the age of 40 -59 yrs for females, Table (1). The answers was Question one 76.9%No and 23.1%Yes in males but it was 66.7%Yes and 33.3%No in females. Question Two was 75.8%No, 24.1%Yes in males and 77.7%No, 22.2%Yes in females. Question Three was 86.8% No, 13.2% Yes in males and 66.7% No, 33.3% Yes in females. Question Four was 78.1% No. 21.9% Yes in males and 66.7% No, 33.3% Yes in females, Table (2). Regarding educational level, most of patients were primary level 49% followed by those who were poverty 16%, inter mediate 13% and lastly college level 5%, Table (3).

**Table (1): reveals that the distribution of cases According to the gender and age group and their percentage.**

Age group	Male	Female
	%	%
29 – 20	6 (6.6%)	1 (11.1%)
39 – 30	19 (20.8%)	1 (11.1%)
49 – 40	30 (32.9%)	3 (33.3%)
59 – 50	21 (23%)	3 (33.3%)
69 – 60	14 (15.3%)	1 (11.1%)
79 – 70	1 (1.1%)	zero
Total	91 (100%)	9 (100%)

**Table (2): reveals that the answer of questions for male & female and their percentage.**

Questions	Male		Female	
	Yes	No	Yes	No
	%	%	%	%
Do you have increase in weight after colon disease happening.	21 (23.1%)	70 (76.9%)	6 (66.7%)	3(33.3%)
Do you have any one from your family with obesity.	22 (24.1%)	69(75.8%)	2 (22.2%)	7(77.7%)
Do you have another abdominal disease.	12 (13.2%)	79 (86.8%)	3 (33.3%)	6(66.7%)
Do you have diabetic disease.	20 (21.9%)	71(78.1%)	3 (33.3%)	6(66.7%)

**Table (3): reveals that the distribution of cases and their percentage according to the Educational levels**

Educational Level	Letterless	Primary	Intermediate	Academic	Institute	College
Number & percentage	%	%	%	%	%	%
	16	49	13	9	8	5

**Discussion:**

The total number of patients was one hundred which only represented the registered cases. The majority of them were males 91% and it was found that (30) 32.9% of the patients were of age group 40 -49 yrs. These results conducted by previous studies had determined that obese men have about forty percent higher risk for colon diseases large until recently ,these risk data had not been available for women because the legal (16). In comparison, report of a World Health Organization (WHO) consultation on obesity at of end 2000 show that the majority of cases in Syria the women was higher prevalence than males especially in age group 46 -65 yrs. (17) .But In Qatar, about 29.3% of females and 17.4% of males are obese these result reflecting our finding (20) .In Iraq, because a low-middle income country in East Mediterranean Region (EMRO), there are still no population – based estimate of obesity and its associated risk factors. (16)

Regarding the answer of question do you have increase in weight after colon disease happening in males 76.9%No , 23.1%Yes and in females33.3%No, 66.7%Yes revealed nearly similar results to other world estimates, it is also one of the key risk factors for serious chronic disease , including Type 2 diabetes ,cardiovascular diseases, hypertension , stroke , colon disease & cancer(21). The answer of question do you have any one from your family with obesity the results was in males 75.8%No, 24.1%Yes but in female77.7%No, 22.2%Yes, the answer No more than Yes in both gender .These results conducted by (22) there is growing evidence that genetic risk factors influence the development and progression of obesity. Moreover, the answer on do you have diabetic disease in males 78.1% No, 21.9% No but in females 66.7% No and 33.3% Yes. (23) And (24) Shown an association between obesity, insulin resistance and diabetes, and it is believed that insulin resistance plays an important role in the development of heart disease.

When we back to the distribution of cases and their percentage according to the educational levels, we are found the highest percentage in the primary level 49%, followed by letterless level1 16% and then the intermediate level 13%. In addition, the lowest percentage was in the academic level 9%, the Institute 8% and the college was 5%. Confirm our findings with (25) the lower educational attainment was associated with a higher Body mass index. Many studies have demonstrated that socioeconomic status or educational level is associated with a number of chronic diseases, such as obesity, diabetes, and colon disease. Educational attainment is a major determinant of income and occupation and, thus, an essential marker of an individual's social economic status, especially in regions undergoing economic transitions. Income and socioeconomic status are also important determinants of a host of social and environmental exposures: Lifestyle, behavior, diet, and nutrition are closely linked with education and socioeconomic status, although such influences may vary among different population groups and stages of economic development. (26).

We are concluding from this study, presence of relative relationship between the obesity and colon disease. And as we observe in the percentage there are genetic relationship between this two cases for presence of genetic relationship to bracing for infecting with obesity disease .The percentage clear that presence of relationship between the obesity and diabetes mellitus which lead to occur of complications such as colon disease . In Qatar, about 55.9% and 47.4% of physicians were aware that obesity is associated with colon and endometrial cancer respectively (20).

## **Conclusions**

- 1- There are still no population - based estimates of obesity and it's associated risk factors, in the absence of published data on overweight or obesity in Iraq, it is difficult to examine any changes in recent years .Nevertheless, this middle prevalence of obesity in our study indicate to presence relativity relationship between the obesity and colon disease . Especially in comparison with those from neighboring or industrialized countries.
- 2- The obesity considered major public health problem in Iraq, especially among men .It's related to age and consumption of certain food. The males more than female with percent (91%).

## **Recommendation**

- 1- Establishment of data based for the obesity and the disease related of it.
- 2- Encouragement the public health and community health studies.

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