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The effect of consuming high levels of yogurt on sexual hormones and rates of gynecomastia in men of different ages

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ABSTRACT
Background: Yogurt is one of the foods that receives wide attention in Iraqi society and has a high consumption rate at the per capita level because of its great benefits, the most important of which is as a source of calcium and its richness in other mineral elements, which made it a main meal for some. But despite the high benefits that yogurt provides, it causes health problems represented by high levels of calcium and iron, and being a mimic of estrogen (the female hormone), which causes a decrease in androgen levels in men, which causes a decrease in muscle mass, which is based on protein, and an increase in fat mass, which encourages the phenomenon of gynecomastia. In men, in addition to the high levels of insulin resistance in the body (type 2 diabetes) associated with hormonal activity.
Methodology: The study includes 30 Persons with calculated ages:10 people (control)10 people between the ages of (20-30 years)10 people between the ages of (40-60 years)The study includes making apparent measurements (measuring gynecomastia) for people who consume yogurt daily in the areas of Ramadi .Doing hormonal tests:(LH - FSH - Prolactin - Testosterone - Estrogen) In addition to doing other tests (Zn - Ferritin - Ca)
Result: the effect of excessive consumption of yogurt on a daily basis on some sexual hormones for men at different ages, as there was no significant difference in the LH hormone between the treatments and the control. 20-30 years old with 25 micro units / liter, while for people whose ages ranged between 40-60 years, its concentration was 29 micro units / liter compared to control 11 micro units / liter, while for testosterone in people who reached the age of 20-30 years it reached 193 micro units / liter and in people who reached the age of 40-60 years, its concentration was 150 micro units / liter compared to control 375 micro units / liter. Therefore, we conclude that drinking yogurt on a daily basis negatively affects sexual hormones for men.

Keywords: yogurt , sex Hormones ,gynecomastia

INTRODUCTION

Consuming a large amount of yogurt may have an impact on some hormone levels in the body.[(1)]Yogurt contains high levels of calcium, which has been shown to have a regulatory effect on hormones such as parathyroid hormone (PTH) and calcitonin.[(2)] PTH regulates calcium and phosphate levels in the body, while calcitonin works to lower blood calcium levels .[(3)]In addition, consuming yogurt may also affect the levels of certain gut hormones, such as glucagon-like peptide-1 (GLP-1) and peptide YY (PYY), which are involved in regulating appetite and metabolism.[(4)] Studies have suggested that consuming yogurt may increase the production of GLP-1 and PYY, which could help to reduce appetite and promote feelings of fullness.[(5)] Furthermore, some studies have also suggested that consuming yogurt may help to regulate the levels of sex hormones, such as estrogen and testosterone, although the evidence in this area is limited and inconsistent.It is crucial to underline that the effect of consuming yogurt on the levels of hormones is dependent on some variables such as the variety of yogurt, the quantity ingested, and even personal metabolic and hormonal dynamics.[(6)] Moreover, it helps to have a well balanced& diverse diet as this helps to improve nutrition and avoid any adverse effect on health.[(7)]Calcium-regulating hormones: Yogurt is a good source of calcium, which can affect the levels of hormones that regulate calcium in the body, such as parathyroid hormone (PTH) and calcitonin.[(8)] PTH helps to increase blood calcium levels, while calcitonin works to decrease blood calcium levels. Consuming yogurt may help to regulate these hormones by providing the body with a source of calcium.

METHODOLOGY

The study includes 30 Persons with calculated ages:10 people (control)10 people between the ages of (20-30 years)10 people between the ages of (40-60 years)The study includes making apparent measurements (measuring gynecomastia) for people who consume yogurt daily in the areas of Ramadi .Doing hormonal tests:(LH - FSH - Prolactin - Testosterone - Estrogen) In addition to doing other tests (Zn - Ferritin - Ca)

RESULTS AND DISCUSSION

Table 1: The effect of consuming a large amount of yogurt on some hormone levels

Dependent Variable: concentration of Hormones IU/L			
age of persons	type of sex hormones	Mean	Std. Deviation
20-30 year	LH	4.80	.837
	prolactin	25.00	5.099
	Testosterone	193.20	16.769
	Total	74.33	87.921
40-60 years	LH	4.40	1.140
	prolactin	29.40	6.348
	Testosterone	150.00	31.623
	Total	54.93	65.248
control	LH	3.40	1.140
	prolactin	11.40	1.342
	Testosterone	375.00	118.448
	Total	145.25	196.139

Table 1 shows the effect of excessive consumption of yogurt on a daily basis on some sexual hormones for men at different ages, as the LH hormone values did not exhibit significant differences with respect to the treatment conditions and the control group. 20-30 years old with 25 micro units / liter, while for people whose ages ranged between 40-60 years, its concentration was 29 micro units / liter compared to control 11 micro units / liter, while for testosterone in people who reached the age of 20-30 years it reached 193 micro units / liter and in people who reached the age of 40-60 years, its concentration was 150 micro units / liter compared to control 375 micro units / liter. Therefore, we conclude that drinking yogurt on a daily basis negatively affects sex hormones. The effects of consuming a large amount of yogurt on hormone levels, including LH, prolactin, and testosterone, may depend on various factors such as the individual's age, sex, hormonal status, and overall health.[9] However, here are some possible effects. [10]LH (luteinizing hormone): LH is a crucial hormone that regulates the sexual function. Most of the people claim that taking a lot of yogurt would have little effect on LH levels, although some studies suggest that the calcium content in yogurt may have a slight inhibitory effect on LH secretion.[11] Prolactin: Prolactin is a hormone majorly concerned with both the development of the breast and synthesis of milk.[12]Eating huge quantities of yogurt does not seem to have an important influence on prolactin levels, although some studies suggest that consuming dairy products may slightly increase prolactin levels in some individuals Testosterone: Testosterone is a male sex hormone that is involved in the regulation of sex drive, muscle mass, and bone density.[13] Some studies suggest that consuming a large amount of yogurt may help to regulate testosterone levels in men, although the evidence is limited and inconsistent.[14] In women, consuming a large amount of yogurt may have a slight inhibitory effect on testosterone levels due to its calcium content.[15] It is important to note that consuming a large amount of any food, including yogurt, could pose certain health risks, so limiting its intake within certain reasonable portions while following a diverse and nutritionally rich diet is advisable.

Table 2: ANOVA table of effect of consuming a large amount of yogurt on some hormone levels

Dependent Variable: concentration of Hormones IU/L					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	735252.844[a]	8	91906.606	44.375	.000
Intercept	349305.446	1	349305.446	168.655	.000
age	40440.199	2	20220.100	9.763	.000
parameter	505312.352	2	252656.176	121.990	.000
age * parameter	106673.733	4	26668.433	12.876	.000
Error	74560.400	36	2071.122		

Total	1203308.000	45			
Corrected Total	809813.244	44			
a. R Squared = .908 (Adjusted R Squared = .887)					

Table 2 Analysis of variance for the effect of excessive eating yogurt on some sex hormones. From the table, it is observed that there exist significant variations concerning the age, as well as significant differences in relation to the type of sex hormones, as well as significant differences in the interaction of age with the type of hormone in relation to control. Men: Some studies suggest that consuming yogurt may help to regulate testosterone levels in men, although the evidence is limited and inconsistent. A research documented in the Journal of Nutrition revealed that men with proper health who consumed yogurt for 12 weeks were able to raise their testosterone levels. There is a correlation between the duration of yogurt consumption and testosterone levels according to the Editorial of the European Journal of Clinical Nutrition which claims that consuming yogurt does not elevate the testosterone levels of healthy men.

Table 3: The effect of consuming a large amount of yogurt on some biochemical test

Dependent Variable: concentration			
age of persons	biochemical test	Mean	Std. Deviation
20-30 year	calcium	9.80	.837
	zinc	42.40	4.722
	ferritin	27.00	9.513
	Total	25.73	15.718
40-60 years	calcium	10.20	.837
	zinc	38.20	5.310
	ferritin	23.25	8.180
	Total	22.50	14.883
control	calcium	9.40	.548
	zinc	77.60	7.436
	ferritin	52.17	20.449
	Total	46.75	30.793

Table 3 displays the effect of eating yogurt on some biochemical tests that include calcium, zinc, and ferritin, where we notice a significant decrease in the level of calcium, zinc, and ferritin compared to control, where calcium, zinc, and ferritin in people whose ages ranged from 20-30 years were (9.8, 42.4, 27).) respectively, while in people whose ages ranged from 40-60 years (10.2, 38, 23), respectively, compared to control (9.4, 77, 52), respectively, which indicates that excessive eating of yogurt negatively affects zinc and ferritin, except for calcium, it did not have impact. Consuming a large amount of yogurt may have an impact on the levels of certain minerals in the body, including zinc (Zn), calcium (Ca), and ferritin (a protein that stores iron in the body).[4] Here are some possible effectsZinc: Zinc is said to be one of the essential minerals, necessary for the proper immune response, for wound repairs and the synthesis of DNA.Consuming a large amount of yogurt may reduce the absorption of zinc in the body, as yogurt contains phytates that bind to zinc and make it less available for absorption. However, this effect is unlikely to be significant if the diet is otherwise varied and balanced Calcium. [6]Calcium being one of the most important minerals that aids in bone and muscle development If large supplement of yogurt is taken in, it increases the levels of calcium in the body which could ultimately have both negative and positive effects. Among the positive benefits, it should be noted that the adequate intake of calcium is paramount for bone health and the intake of yogurt is a simple way to supplement calcium requirements.[3] On the negative side, consuming excessive amounts of calcium can lead to kidney stones and other health issues, especially in individuals with kidney problems or hyperparathyroidism Ferritin: Ferritin is a protein that stores iron in the body and helps to maintain iron levels in the blood.[2]It's unlikely that eating a lot of yogurt will affect the ferritin level as well, as yogurt is not a major source of iron. Consuming large amounts of yogurt may interact differently with a person's sex,age, and health in general so it is best recommended that yogurt be consumed in moderation along with healthy diets.[7]

Table 4: ANOVA table of effect of consuming a large amount of yogurt on some biochemical test

Dependent Variable: concentration					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	22809.617[a]	8	2851.202	33.287	.000

Intercept	44403.009	1	44403.009	518.393	.000
age	5113.544	2	2556.772	29.850	.000
parameter	15289.748	2	7644.874	89.252	.000
age * parameter	2159.266	4	539.816	6.302	.001
Error	3083.583	36	85.655		
Total	72551.000	45			
Corrected Total	25893.200	44			
a. R Squared = .881 (Adjusted R Squared = .854)					

Analysis of variance for the effect of excessive eating yogurt on some biochemical test The table reveals the fact that there are important differences in relation to age, plus there are significant differences in relation to the type of biochemical test, as well as significant differences in the interaction of age with the type of biochemical test in relation to control. MenAs in Figure 1

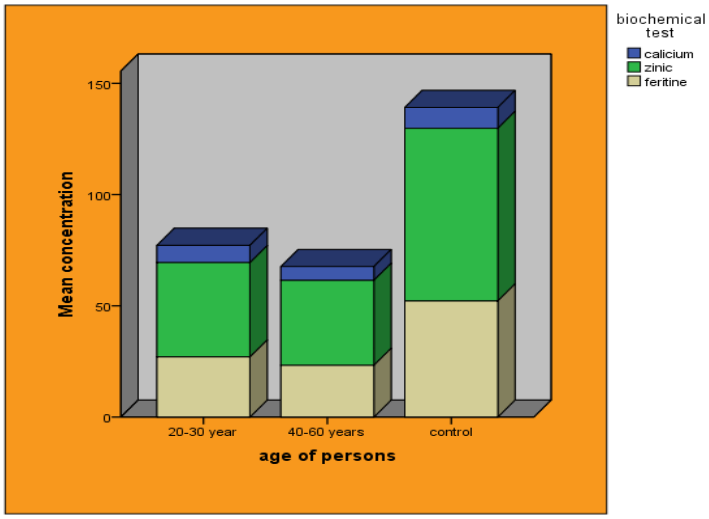

Figure 1: effect of consuming a large amount of yogurt on some biochemical test

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