The Effect of Dietary Advice on Patients Having Gastric Band Surgery in Egypt Around 2023

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ABSTRACT

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Although bariatric surgery is a very successful weight loss procedure, there may be nutritional difficulties following the procedure depending on several variables including age, health, income, and surgical complications. Digestive troubles and significant weight loss are common manifestations of these illnesses. The purpose of this study was to evaluate how dietary recommendations affected the amount of nutrients consumed by patients who had gastric banding (GB) surgery. It was postulated that this kind of direction would improve the intake of vital nutrients. Over 12 weeks, 50 participants in the non-controlled experiment, ages 18 to 65 with a BMI over 35, got dietary and behavioral guidance from a nutrition professional every two weeks. The findings showed that adhering to the dietary recommendations significantly reduced energy intake and increased protein consumption. But both before and after the intervention, a sizable portion of participants failed to meet the recommended nutritional levels. Despite the recommendations, the proportion of people who did not meet dietary requirements did not change. These results highlight the need for individualized nutritional interventions and careful monitoring of nutritional status in patients undergoing gastric banding, especially concerning pre- and post-operative dietary guidelines. In summary, even while post-surgery dietary counseling showed improvements in nutrient intake, enduring deficiencies—particularly in protein—highlight the critical necessity for early and ongoing nutritional care catered to each patient's specific needs.

Keywords: *gastric band- surgery – nutritional – counseling- Egypt*

INTRODUCTION

For patients with severe and complex obesity, bariatric surgery is acknowledged as the best clinically and financially advantageous course of treatment **(NIHCE, 2023**). Every bariatric surgical treatment has a different effect on nutrition, and there is a chance that micronutrient shortages could become clinically serious **(Parrott and others 2017; Mechanick et al., 2020).**

Globally, bariatric surgery including gastric banding has become a vital intervention in the changing field of managing obesity. Although there are significant benefits to weight loss and metabolic improvements with this surgical method, post-operative nutritional management must be carefully managed (**Buchwald and Oien 2013).** Bariatric surgery has increased in Egypt as it has in many other countries due to the prevalence of obesity and its accompanying comorbidities. This emphasizes the significance of enhancing post-operative care measures to ensure long-term health outcomes (**GBD 2015 Obesity Collaborators 2017).**

Around 2023, Egypt's healthcare system continues to adapt to the challenges posed by obesity and its surgical treatments, including gastric banding. There is still much to learn about how well dietary recommendations might help patients post-surgery recovery and treat nutritional inadequacies **(Mechanick et al., 2013).** Thus, it is vital and opportune to research how structured dietary interventions affect the nutritional intake and general health outcomes of Egyptian patients receiving gastric banding.

Overall, bariatric surgery can lead to nutritional complications that require careful monitoring, early diagnosis, and appropriate treatment to prevent long-term adverse effects. The current study's objective was to investigate how changes in nutrient intakes among patients undergoing GB surgery were affected by dietary counseling. The study hypothesized that these patients' dietary counseling would result in a reduction in energy intake and an increase in dietary intakes of macro- and micronutrients.

THE OBJECTIVE

The purpose of this research is to discuss the consequence of tailored dietary counseling on the health and nutritional status of patients in

Egypt undergoing gastric banding. This project aims to provide empirical data that improves the quality of care for bariatric patients in Egypt and other similar demographic contexts by utilizing contemporary perspectives and approaches.

METHODOLOGY

***Study design**:*

The current research used a non-controlled methodology to consider the effectiveness of behavioral legal representation and dieting on patients undergoing GB surgery's assimilation of macro- and micronutrients during 12 weeks.

Ethics approval:

The study adhered to ethical guidelines established by the Scientific Research Ethics Committee of the General Organization for Teaching Hospitals and Institutes. Before the study's initiation, patients provided written consent to participate. The study protocol was approved under registration number IN000141.

Study population:

50 GB (gigabytes) of individuals who had undergone bariatric surgery were included in the study. These patients met certain requirements to be included in the study.

1. **Eligibility Criteria**:

Eligibility Criteria had undergone bariatric surgery at least **12 weeks earlier**, A **BMI (Body Mass Index)** of **35 kg/m² or more**, **18–65 years old**, and were **sedentary**, exercising less than **20 minutes per day** over the past 12 weeks.

2. **Exclusion Criteria**:

When the patients weighed more than **180 kg**; had functional limitations that would prevent exercise, took weight loss medications, had serious cardiovascular disease, uncontrol-lled hypertension, a hematocrit level below **30%**, had chronic kidney disease, untreated thyroid disorders, had severe pulmonary disease, major neuro-psychiatric illnesses, were pregnant or lactating, and were taking recreational drugs.

Methods steps:

Dietary Intervention after GB surgery:

The participants received one-on-one dietary counseling over the phone or in person for all 14 days. Every meeting goes ahead as nearly as thirty minutes. The dietitian with a PhD in nutrition (MS) gave the counseling.

The Dietary Guidelines for Americans DGA **(2010**) and the American Society for Metabolic and Bariatric Surgery (ASMBS) for gastric bypass surgery patients (**Eisenberg et al., 2022)**. **Stocker (2017)** has adhered to all people, who were instructed to maintain a daily calorie intake of 1200 to 1500 kcal. To lower their calorie intake, the participants were told to restrict food quantities, high-energy foods, high-energy drinks, and items cooked with a lot of fat. They were advised to eat the main dish slowly (taking at least 20 minutes), abstain from alcohol for 30 minutes before and after meals, eat at least 60 g of protein daily, and incorporate foods high in fiber into their meals to feel fuller for longer.

Following weight loss, bariatric surgery patients who adhere to the protein requirement have an improved proportion of lean BM **(Raftopoulos et al., 2011).** To achieve their protein demands, the responders were advised to eat fish, skinless chicken, lean meats, and egg whites. Additionally, they were instructed to consume the foods high in protein first, rather than those high in fat or carbohydrates. In addition, the subjects were instructed to drink two liters (64 ounces) of water sipped intermittently throughout the day and to eat at least two servings of fatty fish per week, such as Atlantic salmon, anchovies, sardines, rainbow trout, or tuna. The subjects were also instructed to consume at least five servings of fruit and vegetables daily, with a preference for green leafy vegetables, orange and deep yellow vegetables, peas, and beans.

Additional recommend-ations included selecting whole grains over processed grains, low-fat dairy over high-fat dairy, and oils like canola and olive oil. Minimizing consumption of foods heavy in sodium, cholesterol, Trans fats, and saturated fats. As advised by the doctors, the patients were instructed to take

multivitamins and mineral supplements **(Aills et al., 2008).**

Sample size:

By SPSS version 28 the sample size which can check the purpose of the study hypothesis is 50 cases with 80 % power, 5% error, and 95%CI. According to the following equation for calculating sample size: n=E2(Z·σ)2.

Sample technique:

The choice of cases depends on the simple random technique of the study sample, the cases have recently been GB surgery patients to avoid Nyman bias and with specific criteria which may play a role as ~~a~~ confounder in the study.

Collection of Data:

According to the available recorded data, the following data are studied and statistically analyzed:

- Epidemiologic data: -Age: Patients were divided into two age groups: -Sex: Patients were divided according to sex either males or females.
- Clinical information: -. At baseline and after six and twelve weeks, information was gathered on blood nutrient levels, complement usage, and food consumption.
- Laboratory analysis: Levels of serum total protein, and albumin were measured in fasting serum according to **McPherson and Pincus (2022).** While hemoglobin and iron, were measured by **Schrot et al., (2007)** method**;** potassium was estimated by the description method **of Wang et al., (2018**).

Statistical Analysis:

The data analysis tool utilized in this investigation was SPSS Windows version 28. The alpha error equals 5% and the power is 80%. The data were presented as percentages and numbers. The median percentiles were utilized for qualitative non-parametric variables and the mean ± standard deviation (SD) for quantitative parametric data. The Mann-Whitney U Test for non-parametric values and the Pearson correlation test were also employed, along with the chi-square test for non-parametric values, the T-test, and an ANOVA for quantitative data. Using the Chi-square test, significant

statistical connections between several variables were found. The association reaches statistical significance if the P value is less than 0.05.

OUTCOMES

Socio-demographic data among the participants in the study

Table 1: The table provides information on the distribution of genders along with a concise analysis of percentages and frequencies. It reveals that 38 (76%) of the 50 people who were polled are female and 12 (24%) are male. The distribution shows that the majority of the sample's participants are women.

Table 2 presents a comprehensive analysis of the age allocation among the population polled, encompassing frequency, percentage, and central tendency indicators (mean and standard deviation). The information reveals a heterogeneous distribution in various age groups: The mean age, 42+-3y, indicates a central tendency of around 42 years with a standard deviation of about 3 years. However, further information is needed to properly interpret this notation. All things considered, table 2 does a good job of summarizing the sample's age demographics by showing the distribution of the sample across several age groups and offering further details about the age distribution's central tendency.

The distribution of the surveyed sample's population between urban and rural areas is shown in **Table 3**. This distribution shows that a sizable majority of people live in cities as opposed to rural areas. It presents a clear and succinct overview of the sample's geographic distribution, highlighting the preponderance of city dwellers.

A detailed summary of the prevalence of different chronic illnesses and the distribution of BMI (body mass index) among the study participants is given in **Table 4.** Among the important findings is BMI: The cohort's mean BMI is 40.1, with a standard deviation of 6.3, suggesting that it is primarily obese. Chronic Illnesses: The following chronic conditions are listed in the table along with their

corresponding frequencies as a proportion of the sample as a whole: 4.8% have type 2 diabetes, 57.1% have hypertension, 52.4% have hypercholesterolemia, 38.1% have low levels of high-density lipoprotein cholesterol, and 23.8% have hypertriglyceridemia. These percentages shed light on the disorders' prevalence among the participants, emphasizing hypertension and hypercholesterolemia as conditions that are more common in this group. The table provides a clear picture of health by combining BMI data with the prevalence of chronic illnesses.

Table 5 provides comprehensive data on calorie consumption and the content of the food at three different time points for participants having gastric banding surgery: baseline, six weeks, and twelve weeks after the procedure. The energy intake and dietary macronutrient composition of patients undergoing gastric banding surgery are shown in detail **in Table 5**. The results show that after surgery, total caloric and cholesterol intake were significantly reduced. There were also some variations in protein intake, but overall fat intake remained mostly constant. These results highlight the dietary modifications that usually follow this kind of surgery and offer insightful information about nutritional therapy in the recovery period.

Tables 6 and 7 present the proportion of gastric banding surgery subjects (n=21) who did not meet macro- and micronutrient intake requirements at three different time points: baseline, 6 weeks, and 12 weeks post-surgery. Table 6 underscores the nutritional challenges faced by gastric banding surgery patients in meeting both macro- and micronutrient requirements post-surgery. While some improvements are noted over time, particularly in reducing saturated and trans fats, there are persistent gaps in meeting protein, fiber, and certain vitamin and mineral needs. These findings emphasize the importance of ongoing nutritional monitoring and support for individuals undergoing gastric banding surgery to optimize long-term health outcomes.

Table 8 offers information on the serum nutritional status of patients undergoing gastric banding surgery. The total protein levels returned to baseline values post-surgery, indicating recovery or stabilization of protein levels over time. Albumin levels dropped significantly immediately after surgery but showed improvement over time, though they did not fully return to pre-surgery levels by the 12-week mark. Iron levels decreased post-surgery but showed improvement by the 12-week follow-up, nearing the pre-surgery levels. Hemoglobin levels dropped significantly post-surgery, indicating anemia, and although there was improvement by 6 weeks, they remained below pre-surgery levels at 12 weeks. Potassium levels decreased post-surgery but showed some recovery by 6 weeks, although they remained slightly lower than pre-surgery levels at 12 weeks. These comments highlight the changes in various blood parameters before and after surgery, indicating potential impacts on nutritional status, anemia, and electrolyte balance, which are critical considerations for post-operative care and recovery monitoring.

Table 9 displays the proportion of gastric banding surgery subjects who did not meet the serum nutritional reference ranges. Iron levels initially increased at 6 weeks but dropped by the 12th week, suggesting a temporary improvement followed by a decline. This fluctuation may indicate variability in iron absorption or compliance with treatment. Potassium levels dropped to zero at 6 weeks but increased significantly by the 12th week. This could be due to changes in diet or medication adjustments. Further investigation is needed to understand the sharp decrease at 6 weeks. Albumin levels decreased initially at 6 weeks but partially recovered by the 12th week. This may indicate a response to treatment or a recovery phase in the condition affecting albumin production. Total protein levels remained consistently low throughout the study period. This suggests a persistent issue that may require ongoing intervention or monitoring. Hemoglobin levels decreased significantly at 6 weeks

but showed a substantial improvement by the 12th week, surpassing the baseline. This could indicate an initial adverse reaction followed by a positive response to treatment or therapeutic intervention Although there have been improvements in some indicators, like albumin and total protein, there are still issues with hemoglobin, iron, and potassium variations. These results highlight how crucial it is to provide these patients with ongoing monitoring and nutritional care to maximize their post-operative health outcomes.

DISCUSSION

During the 12-week duration of the current study, participants demonstrated several beneficial changes in their dietary habits, including a reported daily reduction in calorie intake of up to 500 kcal. It is imperative to counsel patients undergoing GB surgery on reducing their energy intake, as research by **Sjostrom et al. (2004)** indicates that post-bariatric surgery tends to increase their daily calorie consumption over time, associated with weight regain. Checkpoint data revealed that approximately 60% of participants did not meet the recommended daily protein requirement of 60 g at 6 or 12 weeks. While the percentage of energy from protein increased at 6 weeks, absolute protein consumption decreased. Similar findings have been reported in trials involving GB or VBG surgery patients who received standard dietary advice. **Colles et al., (2008)** noted that although absolute protein intake remained below recommended levels a year after GB surgery, the percentage of calories from protein had increased. **McGrice and Porter (2012)** highlighted persistent challenges in meeting protein requirements among GB surgery patients even a year post-surgery. **Trostler et al. (1995)** observed a significant initial drop in the percentage of energy from protein after VBG surgery, followed by a return to baseline values by nine months, similar to our study's follow-up outcomes, although they did not specify total protein intake.

Cholesterol consumption decreased by approximately 25% at both 6 and 12 weeks, with most participants adhering to recommended limits during

follow-up. There was also a reduction in the proportion of energy derived from trans-fats at 12 weeks; however, many subjects still exceeded recommended levels, indicating the ongoing importance of limiting trans-fat intake. The decrease in cholesterol intake post-gastric bypass surgery aligns with findings in non-bariatric surgery patients following a cholesterol-lowering diet **(Shah et al., 2002).**

Positive outcomes from the intervention included a notable 62% increase in vitamin K consumption by the 12-week mark, accompanied by a reduction in the proportion of patients deficient in vitamin K, dropping from 86% at baseline to 43% at 12 weeks. In contrast, a separate study using the Ornish diet, rich in plant-based foods, did not show similar improvements in vitamin K intake among non-bariatric surgery patients **(Gardner, 2010**). The reasons behind this disparity remain unclear, given the abundant presence of vitamin K in plant-based diets. Our study specifically emphasized the consumption of vitamin K-rich green leafy vegetables. However, there is a lack of comparable data on micronutrient intake between patients undergoing GB and VBG surgeries, particularly for vitamin K.

Sodium consumption decreased significantly by approximately 30% from baseline, although this reduction became evident only after six weeks. Nevertheless, many patients continued to consume more food than necessary during follow-up, indicating ongoing support needs in dietary management. These findings parallel those of a three-year hypertension prevention trial, where participants allocated to energy or sodium restriction groups experienced substantial reductions in salt intake (**Shah, 1995).**

Despite these improvements, the intervention did not alter the proportion of participants with insufficient intake of other nutrients at 6 or 12 weeks. Several individuals did not meet recommended dietary fiber, saturated fat, or vitamin A, C, D, and E levels. This pattern was consistent for zinc, iron, and calcium deficiencies, with specific deficiencies noted in iron, calcium (among men only), zinc, and copper among VBG surgery patients at 12 months post-surgery **(Trostler et al., 1995).** Saturated fat intake was notably high among GB surgery patients one year post-procedure, as highlighted in previous research **(McGrice and Porter, 2012).**

In addressing recommendations for individuals considering GB surgery, this study underscores critical nutritional considerations. It is essential to increase consumption of high-protein foods like skinless chicken, fatty fish, lean meats, egg whites, low-fat dairy, and legumes to meet protein requirements adequately. This dietary adjustment also enhances the intake of essential vitamins and minerals that were deficient in participants during follow-up. Incorporating fatty fish into the diet further boosts the intake of beneficial DHA and EPA omega-3 fatty acids.

Emphasizing a diet rich in fruits, vegetables, whole grains, and nuts increases dietary fiber and enhances overall micronutrient content. To mitigate excessive energy intake from saturated and trans fats, reducing solid fats and partially hydrogenated fats is crucial. Substituting these with healthier options like canola and olive oils can increase consumption of beneficial omega-3, omega-6, and omega-9 fatty acids.

Additionally, minimizing processed foods is advised to lower salt intake. It is recommended to manage total energy intake while focusing on these dietary strategies. Current guidelines from the ASMBS stress calorie restriction and sufficient protein intake post-GB surgery but do not extensively cover these additional dietary recommendations. The guideline of at least 60 g of protein daily lacks strong support from studies, leaving uncertainty regarding optimal protein needs. Further evidence-based research on nutritional issues specific to GB surgical patients could refine dietary recommendations for this population.

Many individuals in the study reported using mineral supplements and multivitamins daily, which partially compensated for some dietary deficiencies identified. However, supplementation does not address other negative aspects of poor diet quality, such as phytochemical composition and links to chronic diseases **(Kamangar et al., 2012).**

Blood nutrition status investigations revealed persistent deficiencies in serum nutrient levels among patients, including below-average hemoglobin levels at 12 weeks. Similar studies have highlighted nutritional deficiencies in GB or VBG surgery patients, including thiamin, beta-carotene, vitamins E, selenium, and potassium, albeit less commonly than in patients undergoing Roux-en-Y gastric bypass surgery **(Shah et al., 2011). von Drygalski and Andris (2009)** noted a significant

incidence of iron-deficient anemia among VBG patients despite dietary guidance. Continued dietary counseling emphasizing supplement require-ments and close monitoring of serum nutritional status is crucial, as many study participants did not meet dietary and serum nutrient recommendations despite recei-ving counseling. The study's 12-week duration lacked further monitoring, underscoring the need for longer intervention and follow-up periods to assess the sustainability of dietary inter-ventions post-surgery. Early intervention may be prudent, as weight regain tends to start approximately a year after GB surgery **(Sjostrom et al., 2004).**

The monitoring strategies are recommended to track these biomarkers over time, and frequently should follow-up assessments happen to make sure they are made. Addressing these discussion points will help in understanding the dynamics of nutrient levels and protein biomarkers over the 12 weeks, guiding future treatment decisions and patient management strategies.

CONCLUSION

In conclusion, the present research revealed that patients undergoing GB surgery ingested more protein and vitamin K as a percentage of total energy over 12 weeks while ingesting fewer calories, cholesterol, potassium, and absolute protein. The percentage of patients who did not drink enough iron increased during the follow-up, but some of the samples who did not consume enough vitamin K decreased. Furthermore, a large number of respondents still did not fulfill important dietary needs, such as the necessary amount of protein. Supplementing with protein, vitamins, minerals, and omega-3 fats, as well as eating the appropriate meals to meet nutritional needs, should be given special attention in these patients.

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Socio-demographic data among the participants in the study

Table 1: Gender:

	Frequency	**%**
Female	38	%76
Male	12	%24
Total	50	%100

Table2: Age distribution:

	Frequency	**%**	**Mean +-SD**
From 18 -25y	10	%20	
From 26-35y	23	%46	42± y
From 36-45y	12	%24	
From 46-55y	5	%10	
TOTAL	50	%100	

Table 3: Urban and rural:

Area	**Frequency**	**%**
Urban	45	91%
Rural	5	9%
Total	50	100%

Table 4: Distribution of BMI and the clinical conditions among the participants in the study

Parameters	**mean +- SD**
BMI	40.1±6.3
Chronic conditions	**% of the total sample**
Type 2 Diabetes	4.8%
Hypertension	57.1%
Hypercholesterolemia	52.4%
Low levels of high-density lipoprotein cholesterol	38.1%
Hyper-triglyceridemic	23.8%

Table 5: Energy and dietary macronutrient intake in gastric banding surgery subjects (n=50)

Nutrient	Baseline median ± **IQR**	**6 Week**	**12 Week**	**P – Value**
Energy (kcal)	1646 (301–2617)	1071 (499–1684) *2	1120 (612–1833) *4	0.0007
Protein (g)	67.3 (16.2–103.6)	55.0 (26.8–80.9) *4	59.4 (36.2–96.1)	0.04
Total fat (% energy)	37.3 (23.2–53.6)	37.1 (16.9–54.2)	40.1 (19.1–48.4)	0.33
Saturated fat (% energy)	13.7 (8.5–20.4)	10.9 (3.7–23.0)	12.9 (6.0–18.6)	0.51
Trans fatty acids (% energy)	2.3 (0.6–4.1)	1.9 (0.6–3.9)	1.8 (0.7–3.2)*4	0.12
Cholesterol (mg)	249.1 (135.9-601.5)	182.0 (49.9–482.5) *4	189.5 (61.9–436.7) *4	0.045
Fiber (g)	9.5 (2.5–16.9)	9.6 (5.3–23.7)	10.3 (6.4–19.1)	0.17

Table 6: Dietary micronutrient intake in gastric banding surgery subjects (n=50)

Nutrient	Baseline median +- IQR	6 Week	12 Week	P –Value
Vitamin A (µg)	432.3.1 (129.5–4789.9)	452.7 (173.3–1740.8)	529.3 (218.1–804.6)	0.68
Vitamin C (mg)	42.7 (9.7–154.9)	38.4 (10.2–159.0)	58.9 (25.2–131.8)	0.88
Vitamin D (µg)	2.7 (0.6–22.2)	1.9 (0.9–14.2)	2.3 (1.1–7.8)	0.37
Vitamin E (mg)	4.8 (1.1–10.9)	4.2 (1.9–16.4)	4.7 (1.5–11.5)	0.71
Vitamin K	59.3 (19.3–172.3)	53.8 (26.6–609.9)	96.2 (26.3–503.8)*2	0.03
Calcium (mg)	622.2 (157.6–2697.6)	533.2 (165.0–1373.8	585.3 (348.5–1193.3)	0.61
Iron (mg)	9.6 (3.0–16.9)	9.2 (3.9–20.2)	9.5 (7.0–21.5)	0.19
Zinc (mg)	8.3 (2.1–14.8)	7.7 (2.3–17.9)	6.9 (4.4–18.0)	0.26
Potassium (mg)	2119.8 (606.3–3486.6)	1589.8 (857.4–2475.3)*2	1731.4 (1077.7–2316.4) *3	0.01
Sodium (mg)	3125.2 (754.2–4287.4)	2293.6 (721.9–4480.3)*3	2155.0 (1226.5–4240.6)	0.06

Table 7: The proportion of gastric banding surgery subjects (n=21) who did not meet the macro- and micro-nutrient intake requirements

Nutrient	Baseline %	**6 Week %**	**12 Week %**
Protein	38	58	57
Saturated fat (% energy)	90	68	79
Trans fat (% energy)	90	84	93
Dietary cholesterol	33	16	21
Dietary fiber	100	95	100
Vitamin A	67	63	50
Vitamin C	67	68	50
Vitamin D	90	95	100
Vitamin E	100	95	100
Vitamin K	86	79	431
Calcium	81	79	86
Iron	14	21	14
Zinc	33	47	50
Potassium	100	100	100
Sodium	79	79	86

Table 8: The proportion of gastric banding surgery subjects (n=21) who did not meet the serum nutritional reference ranges

Parameters	Reference Range	Before surgery	After surgery		
			Baseline	6 weeks	12 weeks
T. protein (g/dl)	**6-8.3**	**7.1±0.7**	**5.1±0.7**	**7.1±0.7**	**7.1±0.7**
Albumin (g/dl)	**3.4-5.4**	**4.1±0.6**	**1.4±0.6**	**4.4±0.6**	**2.0±0.6**
Iron (mcg/dl)	**60-170**	**96.5±30.2**	**56.5±10.2**	**43.9±9.9**	**77.1±13.0**
Hemoglobin (g/dl)	**12.1-17.2**	**15.0±1.2**	**9.0±1.9**	**11.6±1.9**	**8.1±1.9**
Potassium (mmol/l)	**3.5-5**	**4.2±0.4**	**3.2±0.4**	**4.2±0.4**	**3.1±0.4**

Table 9: The proportion of gastric banding surgery subjects (n=21) who did not meet the serum nutritional reference ranges

Nutrient	Baseline %	**6 Week %**	**12 Week %**
Iron	14	19	12
Potassium	5	0	12
Albumin	10	0	6
Total Protein	5	0	0
Hemoglobin	35	10	53

تأثير الارشادات الغذائية على مرضى جراحة ربط المعدة في مصر حوالي عام 2023

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الملخص العربي

على الرغم من أن جراحة السمنة هي إجراء ناجح جدًا لإنقاص الوزن، إلا أنه قد تكون هناك صعوبات غذائية بعد الإجراء اعتمادًا على عدة متغيرات بما في ذلك العمر والصحة والدخل والمضاعفات الجراحية. تعد مشاكل الجهاز الهضمي وفقدان الوزن بشكل كبير من المظاهر الشائعة لهذه الأمراض. كان الغرض من هذه الدراسة هو تقييم مدى تأثير التوصيات الغذائية على كمية العناصر الغذائية التي يستهلكها المرضى الذين خضعوا لعملية جراحية لربط المعدة. وكان من المفترض أن هذا النوع من الاتجاه من شأنه أن يحسن تناول العناصر الغذائية الحيوية. على مدار 12 أسبوعًا، حصل 50 مشاركًا في التجربة ، الذين تتراوح أعمارهم بين 18 و65 عامًا ومؤشر كتلة الجسم أعلى من 35، على إرشادات غذائية وسلوكية من أخصائي تغذية كل أسبوعين. وأظهرت النتائج أن الالتزام بالتوصيات الغذائية قلل بشكل كبير من استهلاك الطاقة وزيادة استهلاك البروتين. ولكن قبل وبعد التدخل، فشل جزء كبير من المشاركين في تلبية المستويات الغذائية الموصى بها. وعلى الرغم من التوصيات، فإن نسبة الأشخاص الذين لم يستوفوا المتطلبات الغذائية لم تتغير. تسلط هذه النتائج الضوء على الحاجة إلى تدخلات غذائية فردية ومراقبة دقيقة للحالة التغذوية لدى المرضى الذين يخضعون لعملية ربط المعدة، خاصة فيما يتعلق بالمبادئ التوجيهية الغذائية قبل وبعد العملية الجراحية. باختصار، حتى في حين أظهرت الاستشارات الغذائية بعد الجراحة تحسينات في تناول العناصر الغذائية، فإن النقص الدائم - وخاصة في البروتين - يسلط الضوء على الضرورة الحاسمة للرعاية الغذائية المبكرة والمستمرة التي تلبي الاحتياجات المحددة لكل مريض.

الكلمات المفتاحية: *جراحة ربط المعدة – تغذية – استشارات – مصر*