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Bariatric Surgery: A pathway to fertility in obese – A case study

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Abstract

There is an increasing popularity of bariatric surgery in reproductive-age women. This is a description of a morbidly obese woman with polycystic ovary syndrome **(**PCOS**)** and hypothyroidism seeking treatment to become pregnant underwent Laparoscopic Sleeve Gastrectomy (LSG). The patient feels she could not achieve her wishes because of her obesity in childhood. The article explains the positive and negative experiences the woman had to undergo striving for control and normality post surgically, throughout the pregnancy and postnatal period.

Immediately after the surgery her weight was 56 kg which means she has lost approximately 37 kg weight. But her present weight is 65 kg. Over a period of three years there is a gain of 9kg in the weight. The overall score of SF – 36 was 87% with the MCS higher (92%) than PCS (83.3%).

Coping with the food especially during the initial years, concerns about pregnancy and the growth of the baby often due to food intolerances were expressed. Finally the enjoyment that has come as a result of improvement in self esteem, independence in the patient, in her work and family was evident as she thinks she has taken the right decision at the right time. The present concern for her is the weight regain and struggle to maintain the new weight. The case study highlights the improvement in quality of life, at the same time reinforces the need for interventions and support groups to alleviate the concerns related to weight regain and maintenance.

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Introduction

Obesity among women has become a major challenge for health providers because it affects all phases of a woman's reproductive life.[1] Obesity influences not only the chance of conception but also the response to fertility treatment, increases the risk of miscarriage, congenital anomalies and pregnancy complications in addition to potential adverse effects on long term health of both mother and infant.[2] The likelihood of successful pregnancy among obese women is less compared to normal weight women.[3] Hence women should aim for a normal BMI before starting any form of fertility treatment.

More than 80 percent of bariatric procedures are performed in women, and approximately half of these are performed in reproductive aged women [4,5] The increasing popularity of bariatric surgery in reproductive-age women calls for greater awareness of its impact on female reproduction.[6,7]

The decision of bariatric surgery is usually taken late by many when they have already lost many years of quality compromised life sacrificing their wishes or dreams. Here is a case where the decision of bariatric surgery was taken in time with family support which resulted in improvement of QoL not only in the patient but also in the whole family.

Case Presentation

The patient, an obese woman aged 34 years with weight 93 kg, height 153 cm, BMI 39.74 kg/m2 came to the hospital seeking treatment to become pregnant as she did not conceive for the last three years after marriage. Each and every gynecologist she met advised her to reduce her weight to start the treatment for infertility. She had already tried exercises, dieting, gymnasium to her level best to reduce the weight even before her marriage but could not reduce her weight. On clinical examination, she was found to be a case of polycystic ovary syndrome (PCOS), known case of hypothyroidism on thyroxin without diabetes mellitus or hypertension. She also had obstructive sleep apnea (OSA).

It was the suggestions from many gynaecologists she met that they will start the treatment only after her BMI is less than 30kg/m2 made her to decide on the bariatric surgery operation .Though none of the gynaecologists suggested bariatric surgery, the patient knew that non surgical methods could not help her in weight loss so far. Finally she decided to undergo Laparoscopic Sleeve Gastrectomy (LSG) the most safe, effective stand alone bariatric surgery in a tertiary care hospital, India.[8]

Pre operatively all the assessments were done to identify her eligibility to undergo bariatric surgery. She was admitted on 27.10.2016, underwent LSG on 28.10.2016. The post operative period was uneventful. A gastrograffin study after surgery showed normal. She was discharged on 31.10.2016 with instructions to review after two weeks, ambulation, low fat and a high fibre diet.

After six months, she had scanty menstruation since two cycles and consulted a specialist of a well known fertility centre. Her cycles became regular after treatment with Letrozole. . She was happy to conceive after 14 months of the surgery but always under tension about the growth of the baby as she could take very limited amount of food and used to vomit almost daily. On 15.10.2018 she delivered a male baby weighing 2.380kg and got discharged on 20.10.2018.

The patient was visited by the investigator at home to assess the present QoL ie, three years and four months after surgery with the child aged one year and four months. The patient looked happy, very social, active and smart. She and her husband are managing their own business. She seemed to be very passionate in driving long distances including heavy vehicles. She says “I am able to wear modern dresses.”

After preliminary conversation with the patient and her family she was asked to fill up SF - 36 questionnaire.[9] The overall score of SF – 36 was 87% with the MCS higher (92%) than PCS (83.3%).Immediately after the surgery her weight was 56 kg which means she has lost approximately 37 kg weight. It was quite paradoxical for the investigator to note that she was a pre-term baby with a birth weight of 1.8 kg. But her present weight is 65 kg. Over a period of three years there is a gain of 9kg in the weight.

History of the patient revealed that she was having obesity as a problem from childhood and it was continuously hurting her mentally due to daily teasing from teachers, classmates and even

by the people on the road.[10] She discontinued her studies when she was in 9th standard, studied privately and passed SSLC and took a paramedical course. Feeling isolated on many social occasions she has tried dieting, exercises, gym etc to reduce her weight those days.

Patient's diet

Her diet pattern is as follows. - Idli – 1 / tea with two biscuits / one chappathi for breakfast, 1 ½ chappathi for lunch, black tea at 4.00 pm and only curries at 9.30 pm. Besides she takes fluids in between.

Discussion

The case clearly shows how obesity in females can lead to mental health issues, emotional problems which may lead to depression. The patient feels she could not achieve her wishes because of her obesity in childhood. She could remember each painful incident in the school. Almost every day she was insulted by one subject teacher while many of her classmates were enjoying the fun. Besides she was subjected to negative comments from the onlookers on the road. On many days, she used to close her room at home immediately after returning from school. She used to scream to her mother please leave me alone when she knocks at the door.[11,12] It also implies the prevalence of PCOD among obese women and how weight loss can lead to better regulation of menstrual cycle and conception. [13]

Coping with food was difficult in the first year after surgery and very difficult during pregnancy; more so after the weight gain. This has been found true in studies where it has been found the work toward coping with food really begins only after the first year of surgery.[14]

Throughout the post surgical period, pregnancy and delivery the patient was striving for control and normality, though many of the changes experienced were positive, sometimes negative feelings challenged her contributing to a sense of ambivalence.[15]

After three years of her surgery life seems to be stable in terms of diet, and activities of daily life which made her more confident. Contradictory findings are also seen on review that bariatric surgery was not associated with an improvement in mental health QoL from baseline as

compared to non-surgical intervention.[16,17] Some studies have proved a range of positive and negative psychosocial experiences.[18]

The consistent anxiety over weight regain of 9 kg was evident throughout the interview. Though LSG was successful in significant weight loss, patient seemed to struggle in maintaining her new weight. An ongoing demand for control of health-related practices not to lose control over the body again was expressed. Experiencing weight regain is connected with emotional stress, shame, and self-contempt. [19] In a mixed method study on 29 patients after bariatric surgery, program support, social support and support group involvement were identified as significant to maintain QoL.[20] Unfortunately these were not in the patient except the family support.

The choice to undergo BS gave her emotional strength to inspire others who had the same struggle to lose weight.[21] Finally one could experience the enjoyment that has come as a result of improvement in self esteem, independence in the patient in her work and family as a result of change in physical appearance. She strongly believes that this could happen due to the right decision made at the right time. Her message to the obese is "***Please undergo bariatric surgery at the earliest if you find your life difficult."***

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