

# Post Total Hysterectomy Obesity on QOL

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**Abstract:** Introduction: Women undergoing major gynecological surgery, with pre surgical physical and mental agony associated and post operative obesity, musculoskeletal disorders fatigue and depression. This original research study aims at to evaluate the role of specific physical exercises on obesity and quality of life of a 38 years old female who has undergone total hysterectomy. Materials & Methodology: As this subject developed lowback and knee pain with 6 kgs of weight gain she was treated with non pharmacological means by specific physical exercises during the period from February 2017 to April 2017 with twice a week frequency. Results: BMI, WC and QOL were evaluated and analyzed with pre and post scores recorded with reduction in obesity and improved quality of life as evidenced by ( $P < .01$ ) statistical evidence. Conclusion: An improved quality of life with reduction in obesity were boon in the women after gynecological surgery with conservative physical exercises was the key outcome of this research.

**Keywords:** Hysterectomy, QOL – Quality of Life, BMI – Body Mass Index, WC – Waist Circumference

## 1. Introduction

Post gynecological surgery weight gain was widely noted, but few studies have recorded increase in obesity (Hedley et al 2004) obesity was well recognized with its implications on various musculoskeletal disorders including lowback ache and knee pain (Dennis et al 2007).

With pre operative gynecological condition including bleeding, pain, discomfort, agony of undergoing surgery etc limiting the subject's physical activities and mental ability should have fuelled up obesity and relative physical inactivity.

Added to that post surgical restrictions of limited / no physical activity could result in untonned muscles, increased weight gain along with subjective medications, hormonal influence on musculoskeletal system resulting in diminished quality of life were to be addressed in this study with physical exercises of specific.

Hysterectomy the removal of uterus is the leading reason for non obstetric surgery among women (Whiteman et al 2008) and with main indications such as fibroids, dysfunctional uterine bleeding, chronic pelvic pain and uterine prolapsed (Carlson et al 1993) and weight gain is a frequent complaint post hysterectomy (Farquar et al 2006)

Obesity is a major public health problem that increases the risk for comorbid conditions particularly diabetes, hypertension, coronary artery disease and cancer (Zhang & Reision 2000) and an increased BMI is associated with decreased psychological well being, reduced social integration, stigmatization and low self esteem (Lissner 1985)

Hence management of obesity is an important health priority, weight loss has been shown to reduce cardiovascular and other metabolic risk factors (Lyznicki et al 2001)

TamilNadu obesity among women is 30.9% when compared with national average of 20.7%, also obese men in

TamilNadu is 28%. When compared to national average of 18.6% (TOI 07.09.2017)

Weight gain in women post hysterectomy is associated with lower physical functioning and health related quality of life (Kristal et al 2005). As with age, hormonal changes and surgery may be interrelated and contribute to challenges in weight management. Hence life style interventions could prevent and combat weight gain

Physical exercises of moderate intensity post hysterectomy lowers the risk of weight gain (Moorman et al 2009)

**Aims & Objectives of this original research** was to a) analyse the impact of exercises on obesity post hysterectomy and oophorectomy b) to evaluate the influence of exercises on quality of life.

## 2. Materials & Methodology

This original research was conducted with due consent of the subject following due explanation of the nature of treatment. No pharmacological means were used in this study. She has done specific set of exercises weekly thrice, each session lasting for 25-30 minutes. Repetition of sets were gradually progressed. This was conducted during the period from February 2017 to April 2017.

## 3. Background Information

Unmarried 38 year old research scholar, unmarried has underwent hysterectomy and oophorectomy in 2015 for uterine bleeding has noticed weight gain by 6 kgs in 4 months post surgery. Vegetarian, employed in a super specialty hospital with sedentary life style also complained of occasional lowback ache and both knee pain with weight gain

### O/E

Ambulant unaided, independent for functional activities. With exaggerated lumbar lordosis and early osteoarthritis knee changes no any major physical findings were recorded.

## 4. Results

The subject's pre and post BMI, WC and QOL were collected, recorded analyzed with due statistical means and tabulated as below:

Table of results on the subject's pre and post BMI, Waist Circumference and QOL:

Test	BMI Kg/m <sup>2</sup>	WC cm	QOL
Pre	35 kg	97	38
Post	31 kg	93	12
SD	2.31	2.40	15
SE	1.33	1.39	8.66
t	3.01	2.88	3
p	<.01	<.01	<.01

## 5. Discussion

- Women who underwent hysterectomy had higher weight gain irrespective of their diet (Kristal et al 2005)
- In a 3 year follow-up post hysterectomy in US with 5 pounds weight gain (Juarbe et al 2006) and another study where 1.5 pounds in 12 months (Wing et al 1991) but higher proportion of women reporting weight gains of > 10 pounds in a single year raise serious concerns about the higher risks for overall mortality, cardiovascular diseases, diabetes, osteoarthritis, certain forms of cancer and depression (Flegal et al 2007)

Obesity itself being a risk factor for uterine fibroids the most common indication for hysterectomy among pre menopausal women (Wise et al 2005). This study subject has 35 kg/m<sup>2</sup> a higher BMI prior to hysterectomy supports her to be obese as a risk factor.

In a study conducted by Patricia Noorman et al 2009 weight gain was, 32% of women have >5 pounds and 18% having a weight gain >10 pounds during the first year follow up post hysterectomy among 6-8 women in carolina, and they have recommended life style interventions to maintain or lose weight may be helpful particularly in the months following hysterectomy. This study subject has along with reduction in obesity and an improved QOL as evidenced in table of results.

### Critical appraisal of this original research were:

- 1) Only obesity and quality of life were measured
- 2) Physical exercises with resisted means using Physioball was only modality studied and evaluated in this study
- 3) Other gynecological factors, depression sexual function, physical fitness were not included in this study
- 4) Also the mechanism of reduction of obesity post gynecological conditions on the influence of hormones were not studied here.

**Limitations of this original research** was being a case study design, lesser duration and only one modality was used. Further studies to validate outcome of this study with larger sample size, include control subjects and longer duration follow up are highly recommended.

## 6. Conclusion

The findings of this research on reduction of obesity and improved quality of life following hysterectomy with specific conservative physical therapy means is beneficial enabling to live with dignity for women who undergo major gynecological surgeries.

Physical exercise are to be tailored based on the evaluation with patient preferences and subject centric and not on adoption of similar type of physical activity prescription for everybody. Hence as a major outcome of this original research where not to discharge the patient with and post surgery exercises, a due follow-up on their physical ailments, including musculoskeletal ailments and obesity shall not only ensure continued healthcare and enhanced dignity of the women post gynecological surgery with minimal dependence on others.

## References

- [1] Hedley AA, Ogden CL, Johnson CL, Carroll MD, Curtin LR, Flegal KM. Prevalence of overweight and obesity among US children, adolescents, and adults, 1999-2002. *JAMA*. 2004 Jun 16;291(23):2847-50.
- [2] Dennis KE. Postmenopausal women and the health consequences of obesity. *J Obstet Gynecol Neonatal Nurs*. 2007;36:511-519.
- [3] Whiteman MK, Hillis SD, Jamieson DJ, et al. 2008. Inpatient hysterectomy surveillance in the United States, 2000- 2004. *American Journal of Obstetrics and Gynecology* 198: 34 e1-7.
- [4] Carlson KJ, Nichols DH, Schiff I. 1993. Indications for hysterectomy. *New England Journal of Medicine* 328: 856- 60
- [5] Farquhar CM, Harvey SA, Yu Y, Sadler L, Stewart AW. A prospective study of 3 years of outcomes after hysterectomy with and without oophorectomy. *Am J Obstet Gynecol*. 2006;194:711-717
- [6] Zhang R, Reisin E. Obesity-hypertension: the effects on cardiovascular and renal systems. *Am J Hypertens*. 2000;13: 1308- 14
- [7] Lissner L, Lindroos AK, Sjostrom L. Swedish obese subjects (SOS): an obesity intervention study with a nutritional perspective. *Eur J Clin Nutr* 1998; 52: 316-322.
- [8] Lyznicki JM, Young DC, Riggs JA, Davis RM; Council on Scientific Affairs, American Medical Association. Obesity: assessment and management in primary care. *Am Fam Physician*. 2001 Jun 1; 63(11):2185-96.
- [9] Needed: Strategies where 55% women are anaemic, 30% obese. *TNN* | Updated: Sep 7, 2017, 00:17 IST
- [10] Kristal AR, Peters U, Potter JD. Is it time to abandon the food frequency questionnaire? *Cancer Epidemiol Biomarkers Prev* 2005;14:2826-2828.
- [11] Moorman, Joellen M. Schildkraut, Edwin S. Iversen, Evan R. Myers, Margaret Gradison, Nicolette Warren-White, and Frances Wang. A Prospective Study of Weight Gain after Premenopausal Hysterectomy . *JOURNAL OF WOMEN'S HEALTH* Volume 18, Number 5, 2009. PP - 699-708

- [12] Juarbe TC, Gutiérrez Y, Gilliss C, Lee KA. Depressive symptoms, physical activity, and weight gain in premenopausal Latina and white women. *Maturitas*. 2006;55:116–125.
- [13] Wing RR, Matthews KA, Kuller LH, Meilahn EN, Plantinga PL. Weight gain at the time of menopause. *Arch Intern Med* 1991;151:97–102
- [14] Flegal KM, Graubard BI, Williamson DF, Gail MH. Causespecific excess deaths associated with underweight, overweight and obesity. *JAMA* 2007;298:2028–2037
- [15] Wise LA, Palmer JR, Spiegelman D, et al. Influence of body size and body fat distribution on risk of uterine leiomyomata in U.S. black women. *Epidemiology* 2005;16:346–354.

