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Short communication

Assessment of contraceptive needs in women undergoing bariatric surgery☆,☆☆

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Abstract

Objective: To evaluate documentation of contraception and counseling in women planning to undergo bariatric surgery.
Study design: Chart review of 1012 women ages 18–45 years presenting for bariatric surgery evaluation. Data on socio-demographic variables, documented contraceptive method, preconception counseling, gynecology referrals and postoperative pregnancies were collected.
Results: The charts of only 272 women (26.9%) contained documentation of a contraceptive method; the most common was oral contraceptives (n=132, 48.5%). Sixteen pregnancies were identified in the first 18 months postoperatively.
Conclusions: Currently, the documentation of contraceptive counseling is lacking in clinical practice. Measures to enhance provider and patient awareness of these issues will improve patient care.
Implications: Pregnancy planning and documentation of perioperative contraceptive use in women undergoing bariatric surgery are suboptimal, placing these women at risk of unintended pregnancies. Future research should delineate the best practices in contraceptive provision in this high-risk population of women.

Keywords: Contraception; Bariatric surgery; Obesity; Weight loss; Pregnancy interval; Preconception care

1. Introduction

Obesity is a major public health problem in the United States. About 30% of women ages 20–39 years are obese, with a body mass index (BMI) greater than 30 kg/m^2 [1]. Bariatric surgery is a safe and effective treatment for morbid obesity, and approximately 50% of patients undergoing bariatric surgery are reproductive-age women [2,3].

The American Congress of Obstetricians and Gynecologists (ACOG) and American Society for Metabolic and Bariatric Surgery recommend against conception for 12 to 18 months postoperatively [4,5]. The early postoperative period presents unique risks because of continued morbid obesity and associated comorbidities as well as new nutritional and metabolic changes that raise concerns for maternal morbidity and fetal development [4,8]. Further compounding this problem is that unintended pregnancy risk may increase after bariatric surgery due to restoration of normal ovulation and enhanced fertility, and obese women are less likely to use contraception compared to women with normal BMI [6,7]. Oral contraceptives are commonly used but are suboptimal as they may fail more frequently after malabsorptive bariatric procedures [7,8,9,10].

Contraceptive counseling is paramount not only to prevent unintended pregnancies within the first 18 months postoperatively but also in helping women choose the optimal time for a healthy pregnancy after achieving a stable lower weight and resolution or improvement of any associated medical comorbidities. The objective of this study is to evaluate documentation of contraceptive care in women planning bariatric surgery.

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2. Materials and methods

A retrospective chart review of patients evaluated for bariatric surgery at Northwestern Medicine between January 1, 2002, and December 1, 2014, was performed. Institutional Review Board approval was obtained. Women ages 18–45 years evaluated for planned bariatric surgery were included. Women who were good candidates but did not actually undergo surgery were also included; these women met National Institutes of Health and clinic-specific guidelines to qualify for bariatric surgery but either decided not to pursue surgery or were lost to follow-up. Exclusion criteria were prior hysterectomy, never being seen by the bariatric surgeon or planned revisional bariatric surgery.

A single reviewer collected data from a centralized electronic health record (EHR). The primary outcome was documented current or planned contraceptive method in the preoperative period. Free-text clinical notes by the bariatric surgeon, nurse practitioner and internal medicine specialists within the bariatric clinic; gynecology notes if present at our institution; and home medications were reviewed. The secondary outcome was documentation of contraceptive counseling and recommendation to abstain from pregnancy for 12 to 18 months postoperatively by any provider. If no method or counseling was documented, it was categorized as not documented. Gynecology referrals, new contraceptive prescriptions and outcomes of pregnancies conceived within the first 18 months postoperatively were tracked. ACOG released its first Practice Bulletin for recommendations for pregnancy care after bariatric surgery in June 2009 [4]. Because this publication could have influenced practice, additional analysis was stratified by year of evaluation. Data for women evaluated in January 2002–June 2009 and those seen in July 2009–December 2014 are reported.

Proportional and descriptive statistics were performed using Stata 14.0 (StataCorp LP, College Station, TX, USA). Descriptive statistics are presented as means with standard deviations when normally distributed.

3. Results

One thousand twelve women met eligibility criteria. The mean age of patients seen was 35.1 years [range 18–45, standard deviation (SD) 6.1 years]. Most women were Caucasian (35.5%) or African-American (35.5%) and privately insured (70.4%). The prevalence of medical comorbidities was similar to that of other bariatric surgery cohorts. Eight hundred twenty-three women (81.3%) underwent surgery, with the Roux-en-Y gastric bypass being the most common procedure (59.4%). The mean preoperative BMI was 48.5 kg/m^2 (range 32–96, SD 8.6 kg/m^2), and the mean postoperative BMI 1 year after surgery was 34.4 kg/m^2 (range 21–78, SD 8.1 kg/m^2).

For the 1012 women, 272 (26.9%) charts documented current or planned contraceptive method (Fig. 1). The most common methods were oral contraceptives (48.5%, $n=132$) and tubal ligation (38.2%, $n=104$). The mode of documentation was variable; current contraceptive use was inconsistently noted either in the bariatric surgeon's or nurse practitioner's note or in the subject's current medication list. Tubal ligation was typically mentioned in the surgical history. There were no new contraceptive prescriptions generated. When method use was analyzed by procedure type for patients who underwent surgery, most patients using a method used oral contraceptives or sterilization. Notably, the most common method among women who underwent Roux-en-Y gastric bypass, a combined restrictive–malabsorptive procedure, was oral contraceptives, with 48.4% of women ($n=64$) using this method.

Documentation of pregnancy interval counseling occurred infrequently after excluding those who had documented permanent sterilization (Fig. 1). Of the seven patients with documented counseling, recommendation to delay pregnancy for 12–18 months was noted in three charts. The remaining four patients had evidence of varying time frames recommended ranging from 6 to 9 months postoperatively. Four gynecology referrals were made: two for contraceptive management by patient request and two for abnormal uterine bleeding.

When stratified by year of consultation — before June 2009 or after July 2009 — there were no significant differences in frequency of documented contraceptive method or pregnancy interval counseling between those women seen before June 2009 and those seen after ($p=.159$ and $p=.123$, respectively; Fig. 1).

Sixteen pregnancies (1.9%) were noted in the first 18 months postoperatively. Contraceptive method was documented for three women — two used oral contraceptives and one used condoms. Pregnancy complications included low birth weight, hypermesis gravidarum, ectopic pregnancy and previable ruptured membranes. Outcomes were unknown for five pregnancies; these patients received obstetric care elsewhere.

4. Discussion

The current study found that approximately one fourth of reproductive-age women seen in a single academic institution's bariatric surgery center had a documented contraceptive method. Of women with a documented method who underwent Roux-en-Y gastric bypass, nearly half used oral contraceptives. This finding raises notable concern because oral contraceptives carry a category 3 rating in the United States Medical Eligibility Criteria for Contraceptive Use [8]. Counseling regarding the recommendation to delay pregnancy for 12 to 18 months after surgery was even less frequent. These results suggest the need for increased vigilance for appropriate contraceptive and pregnancy planning in these high-risk patients.

Strengths of the study include its large sample size, having a single reviewer and EHR allowing for consistency