

Impact of Obesity on Fertility and Pregnancy in Women

Rajesh Khullar*

Senior Consultant Surgeon, Institute of Minimal Access, Metabolic & Bariatric Surgery, Max Healthcare Institute Ltd, Saket, New Delhi

Keywords: Bariatric surgery; Obesity; Infertility; Reproductive age; Menstrual irregularities

Short Communication

Men and women each have risk factors that can contribute to infertility, which may be genetic or environmental or lifestyle related. Obesity is one of the most well known risk factors for infertility.

The prevalence of overweight and obesity is higher among urban women than their rural counterparts in India. More than 23% of women in the urban area are either overweight or obese compared to only 7% of women in rural areas [1].

Nationally representative surveys show recent increases in the prevalence of overweight and obesity among women of reproductive age in Bangladesh, Nepal, and India from 10.6 to 14.8% from 1996 to 2006 [2].

In the last one decade, the association between weight, nutrition, lifestyle and fertility has attracted much needed attention. Fertility is negatively affected by obesity. Moreover, for obese, intimate lives suffer which negatively impacts their self-esteem and overall status of their relationship.

Obesity contributes significantly to menstrual irregularities, absence of ovulation, difficulty in conception, reduced response to fertility treatments, increased chances of miscarriage and perinatal complications.

Obesity causes increased production of insulin as well as insulin resistance, which, in women, may lead to erratic ovulation. There is also a link between obesity, excess insulin production and infertility which is referred to as polycystic ovarian syndrome (PCOS). PCOS is a specific medical condition represented with irregular menstrual cycles, decreased or absence of ovulation, obesity and elevated levels of male hormones [3].

- PCOS is a risk factor for infertility, and it has been established that 35-65% of PCOS patients are obese.[4]
- Increased BMI negatively affects the achievement and maintenance of pregnancy. Obese females have a lower chance of pregnancy and a higher risk of miscarriage. [5]
- Even after conception, they have higher risk of pregnancy complications such as miscarriage, developing diabetes and chances of premature birth. The likelihood of LSCS (Lower segment Caesarian section) also increases which puts the mother and baby at high risk.

The prevalence of obesity among women of child-bearing age has increased from about 24.2% in 2005 to 28.3% in 2015, and the number of females having weight-loss surgery is rising, which increases their chances of conception due to weight loss. [6]

Pregnancy After Weight Loss Surgery

Pregnancies after weight loss surgeries have better neonatal outcomes such as fewer chances of premature and caesarian deliveries and lower incidence of low and high birth weight babies.

- Available data suggest that as little as 5%-10% weight loss can improve fertility outcomes. [7]

- It has been documented that post-surgery weight loss for women with PCOS resolved their infertility issues (metabolic and reproductive abnormalities) and these women are able to conceive after the surgery.
- However, to protect women and their babies from potential malnutrition, it is recommended that women should not conceive until their weight stabilizes i.e. at least for a period of 18-24 months after bariatric surgery, pregnancy should be avoided. [8]

Pregnancies after bariatric surgery have much lower risks of women developing gestational diabetes and the chances of having caesarian sections also decrease dramatically. The incidence of pre-eclampsia also reduces and so does the risk of the mother developing high blood pressure.

In case a Caesarian Section is required, the risks are lower for women and their babies after bariatric surgery.

It is important that women who conceive after bariatric surgery be in touch with their gynecologist and bariatric team with regards to nutrition and vitamin supplementation.

References

1. Gouda J, Prusty RK (2014) Overweight and obesity among women by economic stratum in urban India. *J Health Popul Nutr.* 32: 79-88.
2. Balarajan Y, Villamor E (2009) Nationally representative surveys show recent increases in the prevalence of overweight and obesity among women of reproductive age in Bangladesh, Nepal, and India. *J Nutr.* 139: 2139-2144.
3. Pasquali R, Patton L, Gambineri A (2007) Obesity and infertility. *Curr Opin Endocrinol Diabetes Obes.* 14: 482-487.
4. Al-Azemi M, Omu FE, Omu AE (2004) the effect of obesity on the outcome of infertility management in women with polycystic ovary syndrome. *Arch Gynaecol Obstet.* 270: 2005-2010.
5. Azziz R (2006) How prevalent is metabolic syndrome in women with polycystic ovarian syndrome. *Nat Clin Prac Endo Metab* 2: 132-133.
6. Khan R, Dawlaty B, Chappatte O (2013) Pregnancy outcome following bariatric surgery. *The Obstetrician & Gynaecologist* 15: 37-43.
7. Pandey S, Pandey S, Maheshwari A, Bhattacharya S (2010) The impact of female obesity on the outcome of fertility treatment. *J Hum Reprod Sci.* 3: 62-67.
8. Hamad G, Eid GM. The Female Patient: Pregnancy and Gynecological Issues in the Bariatric Surgery Patient. Chapter 38. *Minimally Invasive Bariatric Surgery.*

*Corresponding author: Rajesh Khullar, Senior Consultant Surgeon, Institute of Minimal Access, Metabolic & Bariatric Surgery, Max Healthcare Institute Ltd, Saket, New Delhi, Tel: +011-2651-5050; E-mail: drrajeshkhullar@gmail.com

Received August 20, 2015; Accepted August 21, 2015; Published August 28, 2015

Citation: Khullar R (2015) Impact of Obesity on Fertility and Pregnancy in Women. *J Women's Health Care* 4: 264. doi:10.4172/2167-0420.1000264

Copyright: © 2015 Khullar R. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.