Fertility treatment in obese women

Koning, A.M.H.

Citation for published version (APA):
Chapter 7

Obesity: argument for withholding fertility treatment?

Koning AMH, Mol BWJ, Dondorp WJ
[translated from Dutch]

Ned Tijdschr Geneeskd 2014;158:A7258
ABSTRACT

Obesity can lead to anovulation and subfertility. Around the world fertility treatment is withheld from women above a certain BMI, ranging from 25 to 40 kg/m². The proponents of this policy use three different arguments to justify their restrictions: risks for the woman, health and wellbeing of the future child, and importance for society. In this article we critically appraise these arguments. In conclusion, we think obese women should be informed about the consequences of their weight on fertility and pregnancy complications and encouraged to lose weight. If, however, a woman is unable to lose weight despite effort, we feel there is no argument to withhold treatment from her. This would be unjustified with respect to the treatment of other women with a high risk of complications.
Numerous people have the wish to start a family. This will be no different for women with obesity (BMI ≥ 30 kg/m²) than for women with a normal weight. Obese women have a higher chance of subfertility than women with a healthy weight. Furthermore obese women are anovulatory more often and subfertile obese women with a regular cycle have a lower chance of a spontaneous pregnancy. For these reasons obese women will more often need assistance to conceive. In the Netherlands and abroad there are different fertility clinics which have a BMI-limit for withholding treatment. In the Netherlands this limit usually lies around BMI 35 kg/m², and varies worldwide from 25-40 kg/m².

The exclusion of a specific group of subfertile women of fertility treatment that is available for others, asks for explicit justification on the grounds of valid arguments. In this article we will check if the arguments used for a BMI-limit are tenable. Looking at the considerations of the advocates of a BMI-limit in further detail, there are 3 kinds: risks for the woman, health and wellbeing of the future child and the consequences for society. Hereunder we discuss these arguments.

Risks for the woman
When using fertility treatment a woman is exposed to the accompanying risks. In obese women the risks of treatment are not per se increased, but the risks of pregnancy complications are. The discussion will then be about these risks.

According to the numerous articles on pregnancy complications, i.e. hypertensive disorders, gestational diabetes and cesarean section, the risk of such complications is indeed increased in obese women and increases with every BMI-class. For example a woman with overweight has an almost 2 times higher risk of preeclampsia than a woman with a normal weight, which means – based on highest prevalence – one in every five overweight women gets preeclampsia during pregnancy. For women with a BMI > 35 kg/m² this is one in every four women. Question is however what this means. First of all, a higher risk than the mean IVF population doesn’t mean that it is irresponsible to take that risk. It is a question of proportionality: a higher risk can still be acceptable in light of the gain a woman can expect from treatment. Through the same reasoning IVF is thought acceptable with other women who
are at increased risk of pregnancy complications because of medical conditions. Women with diabetes mellitus have an increased risk of hypertensive disorders and congenital abnormalities, macrosomia, stillbirth and premature labour. [207] Diabetes mellitus is however not an exclusion criterion for fertility treatment.

Second of all it should be open for discussion who is to decide about this. It is without question that a physician cannot put her patient at risks that are disproportional, even not at her request. But in cases where there is at least discussion conceivable, we can defend that a competent and well informed woman in principle has the right to her own deliberation when considering risks taken for herself in realising her child wish. Not allowing them this would be unjustified paternalism.

Risks for the child
Children of obese mothers are at increased risk of labour complications and perinatal mortality. Maternal obesity is associated with a significant higher risk on several congenital malformations (oddsratio (OR): 1.3–2.1; absolute risk: circa 1.2%), including neural tube defects, cardiovascular risks and stillbirth (OR: 2.1, 95% CI: 1.2 to 3.6).[207] Furthermore, pregnancies complicated by preeclampsia result more often in premature birth with related morbidity. In addition there is a positive relation found between higher maternal BMI and the chance of a child getting overweight themselves. Also children from obese mothers have a higher risk on other illnesses and disorders associated with the metabolic syndrome (hypertension, dyslipidemia and glucose-intolerance).

There is general agreement that caregivers in fertility, because of their causal and intentional involvement in realising the child wish of a woman or couple, should in their consideration of treatment keep in mind not only the interest of the help seeker(s) but also the wellbeing of the future child. In the Netherlands a point of view has been formulated by the occupational group. [208] Although there are different visions in daily practice about when this is at hand, it is emphasized that rejection of treatment on grounds of the welfare of the child can only be considered in exceptional circumstances, actually when there is “great risk of serious harm”. [209] Despite aforementioned high relative risks it cannot be maintained that based on this criterion fertility treatment must be withheld from women with obesity.
Consequences for society

Society has an interest in restraining the costs involved in compensation of fertility treatments. Could this possibly be a reason to at least restrict the reimbursement of fertility treatment to a BMI value? In our simulation study of subfertile ovulatory and anovulatory women the costs per live birth were respectively 77 and 100% higher for obese women compared to normal weight women. [210] The largest proportion of extra costs were derived from pregnancy complications which as mentioned before occur more in women with a BMI > 30 kg/m². Besides this there is a slightly lower success rate with obese women (OR: 0.8–0.9). Because of the higher risk of pregnancy complications and the higher costs per live birth, society could save money with restricting reimbursement of the costs of fertility treatment to a certain BMI. There are other priorities in health care besides fertility treatment and therefore it is inevitable that society draws a line somewhere. In the Netherlands only 3 IVF treatments are reimbursed for example up until the age of 43. The first restriction affects all IVF patients roughly in the same manner, and this age restriction is justified in light of the deteriorating success levels beyond the 40th life year. A BMI limit however is of another category because then a potentially well treatable patient group is excluded from reimbursement. An argument used for this policy is ‘limited resources should be used to maximum effectiveness’. [211] Question is however why women with an additional health problem do not have the same right to aid to conceive as women that are just subfertile and who’s treatment will be less expensive because of that. Further so, the ones who advocate excluding treatment above a certain BMI level seem to use this instrument rather selectively. Excluding women with other comorbidities is not called for.

Overweight and lifestyle

We conclude that none of three arguments that are used in favour of a BMI-limit are convincing. Against all three the objection is that it excludes a specific patient category on grounds that are not alleged against treatment of others with comparable risks. Or did we overlook a difference which suggests that no equal cases are at hand here? You could introduce the argument that to a certain point obesity is a changeable condition, while for example diabetes mellitus or age are not. If potential risk for mother and future child together with the costs for society can be prevented by first aiming at weight loss, then it is evident
that healthcare providers should advise this. There are some observational studies that suggest a positive relationship between weight loss and fertility. In the Netherlands a randomised controlled trial has been conducted past years looking at the effect of lifestyle intervention on the chances of live birth in obese subfertile women. If the results confirm it is useful and cost-effective to start with lifestyle intervention in obese women, than this should be policy from now on. This advice should not be without obligations: one should expect the women to make a serious attempt to lose weight. [97]

You cannot assume however that it is achievable to lose weight for everybody. Dropout is a considerable problem with lifestyle intervention, with less or no weight loss as a consequence.[173] As noted by the Task Force Ethics and Law of the European Society of Human Reproduction and Embryology (ESHRE) in 2010, women that have attempted weight loss without success should not be excluded from fertility treatment. [97] As we have shown there is no justification for this policy.

Conclusion

Obesity is a cause of subfertility and pregnancy complications. Possibly lifestyle intervention can change this. A consultation at the fertility clinic should be considered an opportunity to inform patients about this and offer lifestyle intervention. But if weight loss is not achieved, this should not automatically shut the door to treatment for women with a weight above a certain BMI. Looking at the risks and costs that are considered acceptable for other fertility patients this would be unjustified.