

August 1998

## Against So-Called Embryo "Reduction": A Statement

The Center for Bioethics Catholic University of the Sacred Heart Rome

Follow this and additional works at: <http://epublications.marquette.edu/lnq>

---

### Recommended Citation

The Center for Bioethics Catholic University of the Sacred Heart Rome (1998) "Against So-Called Embryo "Reduction": A Statement," *The Linacre Quarterly*: Vol. 65: No. 3, Article 4.

Available at: <http://epublications.marquette.edu/lnq/vol65/iss3/4>

# **Against So-Called Embryo "Reduction"**

## **A Statement**

by

**Center for Bioethics  
Catholic University of the Sacred Heart  
Rome**

---

Over the last few years the scientific community has attempted to make certain operations appear to be "normal". These operations are performed by physicians but they are extremely questionable from an ethical point of view in that they involve the suppression of a human life. In other words, there is an attempt to give these operations the characteristics of a medical procedure, whereas actually there is nothing much medical about them at all.

This is the case in so-called embryo "reduction", that is, the selective termination of some embryos, sparing the others, in a multiple pregnancy usually due to medically assisted fertilization procedures.

In fact, as it is known, both hormone treatments for the induction of ovulation in the case of infertility, and assisted fertilization techniques (FIVET, GIFT, etc.) have led to a significant increase in multiple pregnancies and the associated maternal and/or fetal complications. Therefore, to prevent the inevitable negative consequences of multiple pregnancies, the literature has begun to discuss embryo reduction, with the aim of improving the maternal-fetal prognosis by reducing the number of embryos to two or three. The scientific societies of gynecology and obstetrics have therefore made recommendations, consensus conferences have been organized and research programs have been financed regarding the best

methods for performing this operation, as though it were a question of an ordinary therapeutic operation.

It is clear, however, that this technique has serious repercussions from a legal, ethical, and moral point of view in that its compatibility with the law on abortion and the arguments adopted to justify it ethically are inadmissible.

Often in fact, the medical press describes the selective reduction of embryos as scientific progress which "should make it possible today for the pregnant woman to avoid the trauma of an abortion", as though reduction were not itself the suppression of the life of some embryos, even though, one hopes, the others will continue to live.

We would therefore like to discuss the presumed therapeutic meaning of embryo reduction, and we consider that the research funds and researchers' energy would be better directed towards an improvement in medical hormonal treatment and the assisted fertilization protocols, rather than towards refining the techniques of embryo reduction.

### **The Medical Aspects of Embryo Reduction**

As mentioned above, this is an obstetrical operation which consists in terminating one or more embryos of a multi-fetal pregnancy (therefore reducing the number of embryos which have begun to develop) and encouraging the continuation of the pregnancy with the remaining embryos. However, the medical literature reports other "indications" for embryo reduction, like the termination of one or more fetuses, even in a spontaneous pregnancy, in which the prenatal diagnosis has indicated the presence of congenital malformations and/or chromosomopathies; or even the termination of one or more fetuses if the woman says she is unable to look after all the newborn infants. These other cases certainly represent borderline situations but in a recent case study carried out in the United States these "indications" were 17% and 9% respectively of the embryo reductions performed.

Therefore it is clear that, on one hand, embryo reduction is connected to the increasing use of assisted fertilization techniques which has caused the greater incidence of multi-fetal pregnancies

with a large number of embryos (four or more); on the other hand it is connected to the progress and technical and cultural background of pathologies for which, unfortunately, there are not as yet any therapeutic perspectives. Therefore this technical development is the factor without which there would be no problem of fetal reduction.

The incidence of multi-fetal pregnancies with a large number of embryos (four or more) has increased over the last few years because of an uncontrolled and unscrupulous use of assisted reproduction techniques.

In fact, many physicians consider that introducing more than one embryo in the woman's uterus increases the possibility that at least one of them will implant itself and that the pregnancy will continue.

However, it often turns out that all the embryos introduced in the uterus implant themselves so some pregnancies occur with seven or even more embryos. With the increase in the number of embryos (in particular more than three), there is an increase in maternal-fetal complications, which are in direct proportion to the number of embryos present in the uterus. In particular, the percentage of preterm deliveries increases and a preterm infant risks serious metabolic and neurological sequelae. This is why a pregnancy with more than three embryos is considered an iatrogenic complication of the assisted reproduction techniques. The most often used techniques for terminating the extra embryos involve injecting a potassium chloride-based solution or a saline solution, with a spinal needle guided by means of ultrasound, into the fetus' chest or heart. In this case, it is considered that the death of the fetus is due to the mechanical action of the needle combined with the increase in pressure in the chest resulting in a cardiac arrest.

There is some data regarding the toxicity of potassium chloride in the embryos that continue living which demonstrates that the operation is not free of problems; the mean rate of "spontaneous" miscarriages of the remaining embryos is, in fact, about 15% and ranges from 9 to 40%. However, other complications connected to the operation technique have also been reported, like sepsis, metrorrhagia, etc.; the possibility of psychological sequelae both in the mother and in the surviving children, as in the relatives, etc.

## Legal and Ethical Implications

Several Ethics Committees from various countries and a few national laws have taken into consideration the ethical implications of embryo reduction and are trying to legally prevent the factors that encourage this practice, like the introduction of more than three embryos into the uterus during assisted fertilization procedures. The law passed in Germany on the protection of embryos states that "anyone who performs a transfer of more than three embryos into a woman during one cycle" will be imprisoned for up to three years or fined.

Other recent regulations on assisted fertilization operations also limit the number of embryos or oocytes to be transferred during a single treatment cycle to three, in order to lower the incidence of multiple pregnancies.

Similar indications have been provided by the French Comité Consultatif National d'Ethique. In 1991 this committee pointed out that embryo reduction should not constitute the legalization of the carelessness of the physician in performing assisted fertilization techniques. Finally, the Italian National Bioethics Committee has also pointed out that there are no medical indications for embryo reduction in triplet pregnancies.

From a purely legal point of view, there is also the problem of where this operation stands with respect to the legislation on abortion. At present in Italy the justification for the operation comes from the law on abortion, although actually the procedures required by the 194/78 Act are not followed. Since it is not an abortion but rather a question of terminating some fetuses and keeping other fetuses alive, it should be considered as "embryonicide", as proposed by the Italian Commission for the reform of the criminal code.

In conclusion, we consider the following ethical points must not be ignored:

- the direct, selected termination of healthy embryos in a multiple pregnancy justified by the fact that this is necessary in order to save the other embryos and/or the mother goes against the principle of respect for human life;
- the selective reduction of the malformed twin is considered a eugenic operation which is unacceptable on the basis of the

respect due to every human being, whatever his degree of health. This operation also involves a concrete risk for the healthy twin;

- the information given to the couple before the assisted fertilization operation has to include information regarding the risk of a multiple pregnancy;
  - in drawing up protocols and regulations for performing assisted fertilization techniques, a more appropriate hormone treatment should be requested and/or a limitation of the number of embryos or oocytes transferred (two or three at the most), so there should be no need for a reduction operation. In the case of FIVET there obviously still are all the ethical objections regarding the modality of fertilization itself;
  - it is the duty of the physician who induces a multi-ovulation or who transfers more than three embryos into the uterus to personally take the responsibility for any consequences involved in a multiple pregnancy. On the other hand, if an obstetrician is faced with a woman with a multiple pregnancy, he has to be able to express conscientious objections regarding the embryo reduction operation even though he still has to assist the woman and all the fetuses of the multiple pregnancy.
-