

Embryo reduction in multiple pregnancies

Ahmadi S.M. (M.D.)¹, Akhoondi M.M. (Ph.D.)², Behjati Ardakani Z. (B.Sc.)³.

1- Assistant Professor, Gynecologist, Isfahan Fertility and Infertility Center, Isfahan, Iran.

2- Assistant Professor, Department of Reproductive Endocrinology & Embryology, Avesina Research Institute, Tehran, Iran.

3- Expert in Medical Sociology, Avesina Infertility Clinic, Tehran, Iran.

Abstract

By the means of assisted reproductive technologies (ART), such as in vitro fertilization (IVF) and intracytoplasmic sperm injection techniques (ICSI), more than one million infants have been born throughout the world. One of the interesting happenings in infertility treatment procedures, that needs to be addressed, is the occurrence of multiple pregnancies which is usually seen following the use of ovary stimulating medications, embryo hatching and transference of a high number of embryos for higher success rates. For reducing the chances of this problem and preventing subsequent complications during pregnancy, embryo reduction is employed for two purposes: 1. Embryo reduction in triple or higher pregnancies, for the prevention of fetal and maternal complications and 2. Selective embryo reduction in cases where one or more fetuses have malformations or chromosomal defects. Embryo reduction methods: Dilatation of cervix and suction of one or more fetuses, via transvaginal route, by the help of sonography and trans-abdominally by the use of sonography. Although medical doctors might not be eager enough to know about embryo reduction in multiple pregnancies, but they have to know about the procedures and be prepared for medical interventions in emergencies, based on ethical and legal principles or on the request of patients. The first step, especially in infertility clinics, is reducing the chances or preventing the occurrence of these instances. Although selective reduction of embryos is ethically and legally accepted, but before any moves taken, offering infertility counseling is essential and it should include the expression of the risks of multiple pregnancies and ethical issues in embryo reduction before the transference of embryo(s) to the uterus, as lack of information on these subjects may lead to more problems afterwards. This study reviews the medical and ethical aspects of the issue and also introduces embryo reduction techniques in multiple pregnancies, in methods employing ovarian stimulating medications and in in vitro fertilization techniques. This method of embryo reduction, will reduce the risks of abortion, premature births, birth of malformed children and fetal demise, otherwise these would be the case if measures are not taken to correct the problem.

Key Words: Embryo reduction, Multiple pregnancies, Chromosomal defect, Assisted reproductive technology, Transvaginal, Trans-abdominal.

Corresponding Author: Dr. Ahmadi Seyed Mehdi., Isfahan Fertility Infertility Center, Isfahan, Iran.

E-mail: doctor_ahmadi@hotmail.com