

Resolutions for Infertility-Far from Being Resolved

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Nowadays, as a secondary demand after solving the problems of hunger and poverty, infertility is becoming a notable issue all over the world. According to the American Centers for Disease Control and Prevention (CDC), about 10 percent of women (6.1 million) in the United States ages 15-44 have difficulty getting pregnant or staying pregnant, which directly increase their mental pressure as well as their families'. Although the causes of infertility have been mostly understood, a considerable number of patients still could not have satisfactory outcomes. Since the first in-vitro fertilization (IVF) infant was reported in 1978 by Edwards and Steptoe, IVF has been evolving and receiving more and more popularity during the following years. The year of 2008 sees the infants born with the assistance of IVF doubled than that of 2007 and accounted for more than 1% of total births in the United States [1]. There is no doubt that IVF gives new insights in terms of solving the pathological and sociological problems related to infertility.

However, there are still many drawbacks and complications that need to be addressed. For these techniques per se, higher pregnancy rate is always expected. Low pregnancy rate, especially due to older age, seems insurmountable and still at the standstill of its achievement (30%) early this century [2]. On the other hand, medicines used for ovary stimulation, especially for longer term stimulation, tend to accelerate the depletion of ovarian reservoir, which raised the concern of aggravated infertility, especially in older women [3]. Furthermore, the ovarian stimulation is not well controlled in some cases, leading to multiple pregnancy, which is one of the major causes for perinatal morbidity [4,5]. In recent years, an emerging body of research has demonstrated adverse outcomes in infants born using Assisted Reproductive Technologies (ARTs), which brought up worries about the fates of those born under ARTs [6]. Finally, increased risk of major birth defects has been suggested by other evidence in IVF-conceived children by micromanipulation of gametes such as Intracytoplasmic Sperm Injection (ICSI), including an increased risk of congenital and sex chromosome abnormalities [7,8].

So it is still too early to celebrate what we have accomplished and a lot of problems and controversies remained unsolved. Some research groups have already begun to incorporate elective single embryo transfer to reduce multiple pregnancy. Some actions have been taken to supervise those clinical centers complying with the above methods. It might be possible to improve or upgrade the techniques and notions we are practicing. It might be possible to develop new medicines that could perform no more and no less in terms of ovarian stimulation. It also might be possible to have better equipments and skillful surgeons to reduce perinatal morbidity.

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