

## **ART: new roles and new problems**

The development of in vitro fertilization (IVF) and its subsequent variations and extensions, all now included under the umbrella of ART (assisted reproductive technologies) changes the role of this medical procedure. ART now is not only method for infertility treatment but real factor of economic and demographic development. ART is competitive product in the internal and external market of medical services which has influence on such processes as migration (“reproductive tourism”), female employment (surrogacy), nuptiality and can change life plans due to cryopreservation of eggs, sperm and embryos. New roles generate new economical, bioethical, juridical problems. ART overcome the barrier of natural selection and make for spread of some heritable diseases; separation of “biological” and “juridical” parenthood creates new types of family relations with their specific rights and duties; the state can use ART as a tool of fertility control, smoothing down or embarrassing availability for some groups.

Russia 2006-2007: investigation of influence of ART on some demographic processes. Data base: statistic of ESHRE (European Society of Human Reproduction and Embryology, European IVF Monitoring), ASRM (American Society of Reproductive Medicine), IFFS (International Federation of Fertility Societies, Surveillance-2004, 2007), RAHR (Russian Association of Human Reproduction, ART monitoring), investigation of patients of Scientific Center of Obstetrics, Gynecology and Perinatology (Russian Academy of Medical Sciences, Moscow, 2005-2007).

Russia has one of the most liberal reproductive legislation (2003), but neither public nor private insurance coverage. Period of ART introduction in the beginning of 1990-th coincided with the period of economic crisis: the state didn't finance reproductive medicine and ART became pay. It determined domination of private reproductive clinics (>80% now). 2007: 51 licensing reproductive center; allowed ART-programs: IVF, artificial insemination, induction of superovulation, IVF surrogacy, gamete/zygote/embryo intrafallopian transfer, multifetal pregnancy reduction, preimplantation genetic diagnosis, donation (including ovarian and

testicular tissue donation), micromanipulation (intracytoplasmic sperm injection, assisted hatching etc), cryopreservation; ART-programs with ambiguous status: posthumous insemination, oocyte maturation, experimentation on the preembryo, status of the conceptus; therapeutic cloning – moratorium (2002).

A space of Russian territory products specific organizational problems of territorial availability of ART. ART-centers are non-profitable in small towns, that's why big developed centers create some types of "satellite" centers with some stage of ART (primary investigation, premedication etc) on base of local gynecological clinics or centers are creating in popular resorts. Openness of economy allows to take heed of situation at foreign markets of reproductive medicine and to occupy the niche (expansion of "reproductive tourists" after stiffening of reproductive legislation in some European countries in 2003-2004) or open the niche (the drain from Russia potential Ukrainian surrogate mothers after putting in force their new favourable for ART Family code 01.01.2004).

Now first Russian ART-children are arriving at the reproductive age. Earlier fetal and neonatal investigations fixed population norm of their conditions but some unobvious abnormalities and pathologies, especially diseases of male reproductive organs displayed at elder ages.

ART treatment ratio is very low [2003 – 10555 cycles, 2935 pregnancies, 1830 newborns (0,12% of total live birth)]. Resolve of main problems deal with national demography project (2007) that provides partial support for ART (budget quotas for some cycles of ART for women younger 38-40 years of age, coverage of medicine expenses, quotas division between private and state clinics etc).