Dear Sir,

We read with great interest the article of Koivurova et al. related to neonatal outcome and congenital malformations in children conceived with IVF (Koivurova et al., 2002).

The authors concluded that neonatal outcome in IVF infants was worse than in the general population, mainly due to the large proportion of multifetal births after IVF. They also found a higher prevalence of heart malformation i.e. ventricular (VSD) and atrial septal defects (ASD) in IVF babies, but they did not observe any of the serious cardiac malformations such as transposition. Some problems have also been found related to definitions of congenital malformations in Table III. For

Neonatal outcome and congenital malformations in children born after IVF

Dear Sir,

We read with great interest the article of Koivurova et al. related to neonatal outcome and congenital malformations in the infants conceived with IVF (Koivurova et al., 2002).

The authors concluded that neonatal outcome in IVF infants was worse than in the general population, mainly due to the large proportion of multifetal births after IVF. They also found a higher prevalence of heart malformation i.e. ventricular (VSD) and atrial septal defects (ASD) in IVF babies, but they did not observe any of the serious cardiac malformations such as transposition. Some problems have also been found related to definitions of congenital malformations in Table III. For
example, the two patients with congenital hypothyroidism in the control group, were counted as malformations; in this case, the prevalence of this endocrinopathy in the control group was 0.35% (2/569), much higher than the usual general frequency of 1 case per 3000 births.

Our data of 964 newborns conceived with IVF from 1986 to 2001 in IVF clinic of the Rabin Medical Center, Beilinson Campus, Petah Tikva, Israel indicate that 60.3% had low birth weight, 60.5% were preterm and 31% were multiple births (26.75% twins; 4.25% triplets). No differences were encountered in the rate of small for gestational age or large for gestational age infants. The neonatal morbidity in IVF babies was found to exceed that of the general population especially in regard to birth asphyxia and neonatal jaundice (Fisch et al., 1997). The prevalence of major congenital malformations detected during the first 3–5 days after birth was 9.5% in the IVF babies which is almost twice the rate found in the general newborn population (4.9 – 5.1%) in our tertiary hospital.

The interesting observation of our data was the presence of some rare patterns of major congenital malformations among the IVF newborns (Merlob and Fisch, 1995).

We described limb–body-wall complex associated with complete absence of external genitalia (third patient with this association in the literature) (Litwin et al., 1991). Poland sequence in one of the triplets (Avrech et al., 1994) and multiple malformations in a 32-week male dizygotic twin including laryngeal atresia and gastric outlet obstruction (Merlob and Fisch, 1995).

The occurrence of these very rare major congenital malformations in IVF infants deserves special attention and is in accordance with excess occurrence of musculo-skeletal defects associated with assisted conception previously observed (Hansen et al., 2002).

References


Paul Merlob1 and Benjamin Fisch
Department of Neonatology and IVF,
Rabin Medical Center,
Beilinson Campus, Petah Tikva,
Israel

1To whom correspondence should be addressed.
Email: rachelf@clalit.org.il