CLINICAL SNAPSHOT

Dichorionic-Diamniotic Twin Pregnancy after Elective Single-Embryo Transfer of a Blastocyst

After intracytoplasmic sperm injection (ICSI), a 33-year-old woman underwent the transfer of a frozen-thawed blastocyst (*Figure 1*) within an an ovulatory thaw cycle with exogenous hormone substitution (estradiol and dydrogesterone in sequence). Ovulation was ruled out with certainty (serum progesterone levels in gestational weeks 5 and 6: 0.11 and 0.22 ng/mL, respectively). A dichorionic, diamniotic twin pregnancy ensued (*Figure 2*). Most twin pregnancies arise from two separate fertilized ova (dizygotic twins). Most monozygotic twins arise by the division of an embryo; there are then two fetuses in separate sacs, with a shared placenta. The present case illustrates a rare event in human beings that is somewhat more common after assisted reproduction (in particular, assisted hatching, blastocyst culture, and/or cryoconservation), namely, a very early, complete division/duplication of the embryo, so that monozygotic twins each have their own placenta and their own membranous sacs (i.e., they are dichorionic and diamniotic). Noninvasive prenatal diagnostic checks and sonographic examinations were normal over the course of the pregnancy. Both fetuses are female; the pregnancy comes to term on 15 November 2019.

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a) Elective single-embryo transfer (without assisted hatching) on day 5 of embryonic development (Gardner morphological grade 3BB).
b) Dichorionic-diamniotic twin pregnancy with lambda sign in gestational week 8 + 6.