spontaneously ruptured; the cerclage was removed, and she developed active labor and delivered a 1400-g baby girl with Apgars of 8 and 9 at 1 and 5 min, respectively. The patient's postpartum course was unremarkable. The baby's course was significant for bilateral grade 1 intraventricular hemorrhages, transient tachypnea, apnea of prematurity, anemia, and jaundice. She was discharged after 5 weeks with no apparent deficits.

DISCUSSION

Although maintenance of the pregnancy in this case ultimately resulted in a successful outcome, the potential risks to the mother of bleeding and infection must be considered when a clinician is presented with the opportunity of allowing such a pregnancy to continue. Furthermore, prenatal care must be designed to address the additional pregnancy complications of incompetent cervix, preterm labor, or rupture of membranes and preterm delivery that commonly occur after asynchronous delivery (1,2). However, in view of the enormous emotional, physical, and financial commitments that are involved in multifetal pregnancies resulting from assisted reproductive technologies, clinicians must be prepared to identify properly, appropriate candidates for asynchronous delivery and expectant management. The intention of reporting this case is to describe the feasibility of continuing pregnancy after first-trimester spontaneous abortion and selective placental removal in a multifetal pregnancy.

REFERENCES


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CASE REPORT

Our patient was a 28-year-old gravida 0 para 0, with a 3-year history of primary infertility. She had undergone an ileocolicectomy with a permanent ileostomy in 1985 due to severe Crohn's disease. Laparoscopy and laparotomy in 1990 revealed dense pelvic and adnexal adhesions attributable to her bowel disease and surgery. After her initial infertility evaluation, the patient experienced end-stage renal disease due to an IgA nephropathy, and she received a living, related kidney transplant in March 1992. Her posttransplant medications included 400 mg cyclosporine, 30 mg prednisone, and 100 mg azathioprine daily. She also received trimethoprim with sulfamethoxazole once
daily and acyclovir, 800 mg q.i.d., for antibacterial and antiviral prophylaxis.

Eighteen months following renal transplant the patient elected to attempt conception by IVF-ET. She was given leuprolide acetate beginning in the late follicular phase, daily human menopausal gonadotropin beginning on cycle day 3 (300 IU daily for 10 days), and hCG (10,000 IU) administered when follicles were mature. Six embryos were transferred 54 hr after retrieval. The luteal phase was supported with progesterone in oil (50 mg i.m. daily), as well as hCG (2500 IU) 2 days posttransfer. At 4 weeks post-embryo transfer there was ultrasound evidence of a single fetal sac with a fetal pole and cardiac activity.

The patient was hospitalized for mild ovarian hyperstimulation and pancreatitis 3 weeks post-embryo transfer. Conservatively managed with bed rest and intravenous hydration, she recovered and was discharged after 3 days. A falling hematocrit was stabilized with the initiation of erythropoietin therapy during the 29th gestational week. Fetal development proceeded normally until 31 weeks of gestation. Ultrasound studies then began to suggest fetal growth retardation.

At 32 weeks of gestation the patient’s blood pressure had increased to 169/98 and her proteinuria increased to 551 mg/24 hr. Ultrasound demonstrated further slowing of fetal growth, with the fetal weight estimated at 1840 g (10th percentile), and decreased amniotic fluid volume. Cesarean delivery was performed at 32 3/7 gestational weeks, 226 days after embryo transfer. The female infant weighed 1819 g (>5th, < 10th percentile) and had Apgar scores of 7 and 8 at 1 and 5 min, respectively. The mother had an uneventful recovery, with stable serum creatinine levels and return of blood pressure to prepregnancy levels.

DISCUSSION

Successful renal transplant frequently is accompanied by return of ovulatory cycles and potential fertility. In fact, about 1 in 50 women of childbearing age with a functioning renal transplant becomes pregnant (3). Experience with those pregnancies has been associated with an increased incidence of preterm delivery and growth retardation. Such pregnancies have, therefore, been considered high-risk events. Nevertheless, documentation of more than 5000 successful post-renal transplantation pregnancies has encouraged physicians to be optimistic in counseling allograft recipients who are considering pregnancy (3). It, therefore, seems reasonable to make advanced reproductive technologies available for the occasional transplant patient who may require them. Since our patient had a stable serum creatinine that was below 2.0 mg/dl and no hypertension, and seemed free of bowel disease following colectomy, we were approving of her decision to attempt IVF-ET. During our initial evaluation of the patient we established that both of her ovaries were accessible to transvaginal needle aspiration and that the grafted pelvic kidney would not be an impediment to ovum harvest. We, therefore, undertook IVF-ET therapy using our standard protocol. The overall response was similar to that experienced in our less complex patients.

Preeclampsia and fetal growth retardation frequently complicate pregnancies following renal transplantation. When the initial decrease in fetal growth velocity was detected at 31 gestational weeks, there was as yet no evidence of worsening blood pressure or proteinuria. Close assessment of fetal condition using multiple variables (nonstress test, biophysical profile, Doppler studies, and amniotic fluid volume) allowed continuation of the pregnancy for 1.5 weeks after clinical evidence of superimposed preeclampsia appeared. Delivery of the fetus was instigated prior to the development of clinical fetal distress.

The successful outcome of this IVF-ET pregnancy reinforces our belief that advanced reproductive technologies can be considered in renal transplant patients. The generally accepted indications for IVF-ET should be applied to these candidates. Attention to the published guidelines for prepregnancy counseling (4) needs to be observed when evaluating such candidates. Each must be fully informed about the inherent dangers of pregnancy to both allograft function and fetal well-being. Then, once pregnancy is established, a proactive approach to prenatal management is required. Deterioration of renal function or rapidly increasing blood pressure may necessitate abrupt termination of the pregnancy and the patient should be forewarned of this possibility. Once the fetus has reached potential viability, untoward events may also require intervention; hospitalization, aggressive antihypertensive therapy, and induced preterm delivery are all possible. In view of the high likelihood of these eventualities, a prepregnancy interview with a member of the perinatal team should be undertaken and that group’s concurrence in the decision for pregnancy obtained. In so doing, assisted reproductive technology can be judiciously offered to the renal transplant patient and a reasonable expectation for propitious outcome established.