

Managing the Clinical Outcomes for High Risk Pregnancies with Daily Home Hemodialysis

Clinical Research
Advancing Kidney Care
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INTRODUCTION

The odds against a dialysis patient carrying a pregnancy to full term are slim. To carry twins to term is even more daunting. Thus, for the multidisciplinary team, sharing a successful pregnancy experience with a home hemodialysis (HHD) patient and family is a particularly rewarding experience. We summarize 2 pregnancy case studies.

KEY LEARNINGS

- ✓ Six days/week HHD improved the dialysis outcomes for both mothers.
- ✓ Managing clinical outcomes for pregnancy to successful gestation requires a collaborative outreach from community clinicians to teaching medical centers and high risk obstetrical management.
- ✓ Early obstetrician referral and nephrologist intervention improve the chance for a successful pregnancy.

CASE STUDY 1: 33-yr old HHD patient

- Pre-pregnancy, patient was on in-center hemodialysis after a recent failed transplant.
- When pregnancy confirmed, the nephrologist and obstetrician contacted the HHD clinic to arrange training for daily dialysis.
- Patient trained on HHD 6 days a week for 3 weeks
 - The patient dialyzed 6 days a week averaging 15 hrs/wk.
 - DFR was 200 with BFR of 400 via an AVF

- Labs were monitored weekly:
 - StdKt/V of 2.68-3.60
 - Phosphorus <5.5 mg/dL maintained
 - Blood pressure controlled with medications
- The patient carried the baby 32 weeks, the gestational goal for birth set by her obstetrician.
- There were no respiratory or extraordinary side effects during pregnancy or birth (Figure 1).

CASE STUDY 2: 44-yr old HHD patient

- Patient dialyzed in-center for 4 months prior to start of HHD training.
- Pregnancy confirmed during the second week of HHD training
- Prompt obstetrical referral and nephrologist intervention supported early outcome management.
- After completing HHD training, patient dialyzed on HHD 6 days/wk
 - Adjusted the prescription to achieve a treatment time of 4 hrs
 - BFR was 400 ml via an AVF with buttonhole technique

- Labs were monitored weekly:
 - \circ StdKt/V > 3.0
 - Within 2 months, binders and vitamin D were no longer required.
 - Anemia, BP control, and QoL were the focus of clinical management
- Twin A was a fetal loss at 26 weeks due to placental insufficiency.
- Twin B was born at 29 weeks via C-section due to placental insufficiency.
- The baby was extubated in 24 hours and continues to thrive without any deficits (Figure 2).



Figure 1.

The baby was born on October 15, 2009 weighing 3 lb 15 oz.



A baby girl named Treasure was born December 18, 2009 weighing 2lbs 1 oz.

Figure 2.

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