

# Peritoneal Dialysis Initiation To Treat End Stage Kidney Disease During Pregnancy. A report of 2 cases

L. Jacobs<sup>1</sup>, S. Kaysi<sup>1</sup>, M. Mesquita<sup>1</sup>, C. Fosso<sup>1</sup>, A. Carlin<sup>3</sup>, I. Brayer<sup>2</sup>, M. Dratwa<sup>1</sup>

<sup>1</sup>Médecin <sup>2</sup>Infirmière

Service de Néphrologie-Dialyse, Département de Médecine Interne, CHU Brugmann, Université Libre de Bruxelles, Belgique

<sup>3</sup>Service de Gynécologie, CHU Brugmann, Université Libre de Bruxelles, Belgique

## 1. Introduction

Despite strong evidence suggesting that peritoneal dialysis (PD) is as efficient as long-hour hemodialysis (HD) in pregnant patients, few cases are described in the current literature.

Patients on PD usually have a higher residual renal function (RRF) and a more stable metabolic environment. They also undergo less hypotensions during dialysis sessions potentially causing fetal growth retardation or even fetal death. RRF seems to play an important role in successful pregnancy. Furthermore, peritonitis rates are not described higher in pregnant patients.

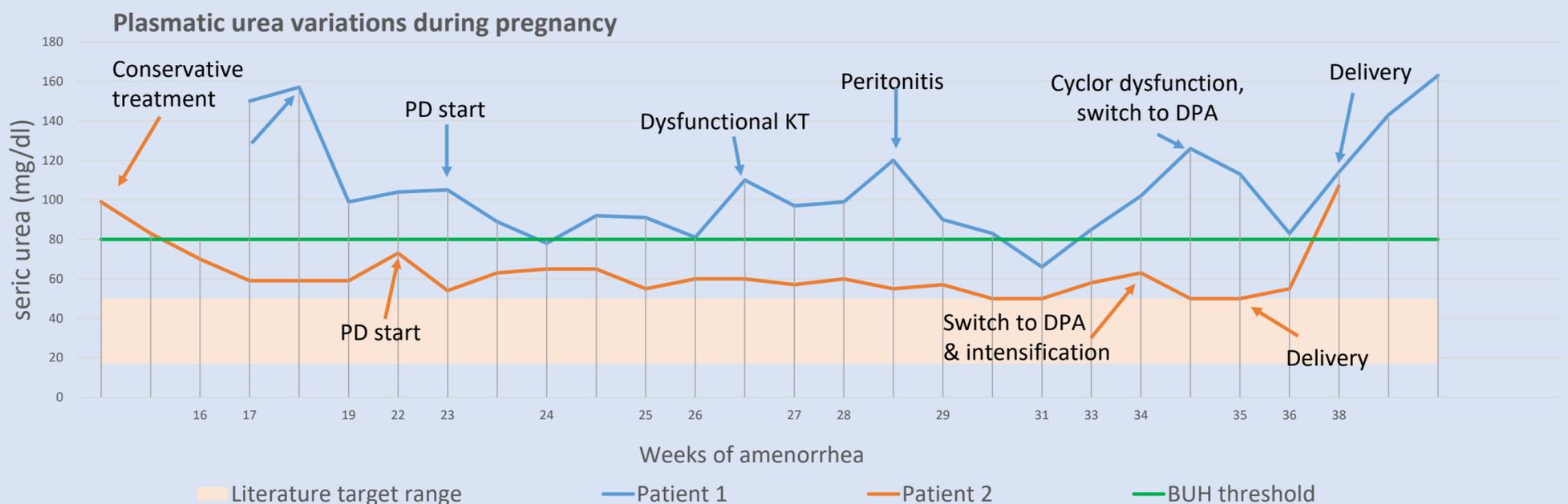
Yet, initiating PD in a pregnant woman needing extrarenal epuration is rarely described if at all. In this study, we report two cases of patients who started PD being already multiple months pregnant: the first case was 14 years ago and the second one nowadays.

## 2. Case report

Our two patients are in their thirties and respectively 16 and 10 weeks pregnant upon admission. Both have a history of anti-phospholipid syndrome, and the second one a known reduction of renal mass. PD was started based on high urea levels in the context of end-stage kidney disease (ESKD) for both patients. PD could significantly reduce serum urea levels.

Our first patient contracted a germ-free peritonitis, successfully treated by intraperitoneal antibiotics. She had to switch to manual PD for a short period of time due to catheter misplacement causing inefficient dialysis and non-stopping alarms on the cyclor. We later performed the adhesiolysis of the peritoneal catheter. She finally gave birth (vaginally) to a healthy 2.5 kg and 45 cm daughter at 38 weeks of amenorrhea.

Our second patient delivered at 35 weeks of amenorrhea, by programmed caesarean section because of uncontrolled high blood pressure and breech position of the child. She successfully gave birth to a healthy 1.8 kg girl.



Legend: Literature target range defined as the target cited in descriptive reports (29); BUH : Brugmann University Hospital; Threshold BUH of 90 mg/dl defined as target of urea reduction. KT: catheter; PD : peritoneal dialysis. BUH : Brugmann University Hospital.

## 3. Discussion & Conclusion

Pregnancy on dialysis is now more conceivable than ever with a reported success rate being over 70–80 % in the last decades .

Initiating PD in a pregnant patient needing extra renal epuration is rare. Yet, nothing seems to suggest worse outcome in comparison with what is currently advised by the Good Practice Recommendation for pregnant patients: namely long-hour daily hemodialysis (>37 hours).

Our two cases of PD initiation in pregnant women showed great outcomes with the first child born almost on calculated term and vaginally without any delivery complication. The baby was, as expected, smaller (2,5kg and 45cm) as was the second born (1.8 kg). Indeed, many of the pregnancies are notable for lower birthweight infants.

Women might have better hope for a successful pregnancy while on PD. PD is also safe, however it requires close clinical and paraclinical monitoring. Adapting the technique modalities (CAPD or APD) allowed us to lead pregnancies close to term and to the birth of a two healthy children (now 13 years old and two months old respectively).

### PD benefits in pregnancy :

- Higher residual renal function in PD
- More stable metabolic milieu
- Absence of intradialytic hypotensions
- Gentle daily ultrafiltration
- Less anemia
- Avoidance of systemic anticoagulation
- More liberal diet (better maternal nutrition)