Türk Nefroloji Diyaliz ve Transplantasyon Dergisi
Turkish Nephrology, Dialysis and Transplantation Journal

Successful Pregnancy in a Patient on Continuous Ambulatory Peritoneal Dialysis

Sürekli Ayaktan Periton Diyalizi Yapan Bir Hastada Başarılı bir Gebelik

Nilüfer OĞUZHAN, Aydın ÜNAL, Feridun KAVUNCUOĞLU, Bülent TOKGÖZ, Oktay OYMAK , Cengiz UTAŞ

Erciyes University, Medical Faculty, Department of Nephrology, Kayseri, Turkey

Correspondence Address: **Aydın ÜNAL**
Erciyes University, Medical Faculty,
Department of Nephrology, Kayseri, Turkey
Phone : 0352 437 49 37/2751
GSM : 0533 649 68 54
E-mail : a.unal@erciyes.edu.tr

Received: 21.05.2009, Accepted: 08.08.2009

ABSTRACT

A 28-year-old female patient, who had been undergoing continuous ambulatory peritoneal dialysis (CAPD) because of end-stage renal disease of unknown origin, presented with secondary amenorrhea, nausea, vomiting, and anorexia and was suspected to be pregnant. The diagnosis of pregnancy was confirmed by ultrasonography (USG), which revealed that she was 11 weeks pregnant. Her physical examination was normal. Her residual Kt/Vurea was 4.38 and weekly residual creatinine clearance was 161.97 mL/min. She came to her routine follow-ups every month until intrauterine growth retardation was detected by USG and her blood pressure was found to be 170/110 mmHg while she was 35 weeks pregnant. A Caesarean section was performed and a 1900 g healthy baby was born. She continued CAPD after termination of pregnancy.

KEYWORDS: Pregnancy, Hypertension, Peritoneal dialysis

ÖZ

Nedeni bilinmeyen son dönem böbrek yetmezliği nedeniyle sürekli ayaktan periton diyalizi (SAPD) uygulayan 28 yaşında kadın hasta sekonder amenore, bulantı, kusma ve iştahsızlık yakınmalarıyla başvurdu. Hastanın gebe olduğundan şüphelenildi. Gebelik tanısı, hastanın 11 haftalık gebe olduğunu ortaya koyan ultrasonografi (USG) ile doğrulandı. Fizik muayenesi normaldi. Rezidü Kt/Vüre değeri 4.38'di ve haftalık rezidü kreatinin klirensi 161.97 mL/dk idi. Hasta 35 haftalık gebe iken USG ile intrauterin büyüme geriliği saptanana ve kan basıncının 170/110 mmHg bulunmasına kadar geçen sürede aylık rutin kontrollerine geldi. Hastaya sezaryen yapıldı ve 1900 g ağırlığında sağlıklı bir bebek doğurtuldu. Gebeliğin bitiminden sonra hasta SAPD'ye devam etti.

ANAHTAR SÖZCÜKLER: Gebelik, Hipertansiyon, Periton diyalizi

INTRODUCTION

The rate of pregnancy in end stage renal disease (ESRD) is very low. The incidence of pregnancy in women on chronic dialysis patients is approximately 1-7% and only 30-50% of the pregnancies result in a surviving infant (1). Recent articles report that only 42% of the babies survive in patients who conceive after starting dialysis (2). We present a peritoneal dialysis patient who gave birth to a healthy baby.

CASE

The patient was a 28-year-old female. She was diagnosed as ESRD of unknown origin in December 2006 and started continuous ambulatory peritoneal dialysis (CAPD) in January 2007. She had 2 healthy children, which were born before ESRD. We suspected that she was pregnant because of secondary amenorrhea, nausea, vomiting, and anorexia. The diagnosis of pregnancy was confirmed by ultrasonography, which revealed that she was 11 weeks pregnant. She started to visit the gynecology department every month. Her physical examination was normal. Her serum analysis showed blood urea nitrogen (BUN) 24 mg/dL, serum creatinine 4.2 mg/dL, sodium 136 mmol/L, potassium 4.3 mmol/L, calcium 9.0 mg/dL, phosphorus 3.2 mg/dL, aspartate aminotransferase 12 IU/L, alanine aminotransferase 16 IU/L, albumin 3.4 g/dL, hemoglobin 12.5 g/dL, intact parathormone 383.2 pg/mL, and ferritin 584 ng/mL. She had used 2000 mL dialysate solution containing 1.36% dextrose three times a day and 2000 mL dialysate solution containing 2.27% dextrose once a day. Her residual Kt/Vurea was 4.38 and weekly residual creatinine clearance was 161.97 mL/min. Her blood pressure was measured as 150/110 mmHg. The patient had already used amlodipine 10 mg a day. However, she was told to continue this antihypertensive

drug because her blood pressure values were 110-120/70-80 mmHg at home. We added doxasozine 2 mg per day to control her blood pressure. Her peritoneal dialysis (PD) solutions were not changed.

Intrauterine growth retardation (IUGR) was detected by ultrasonography on December 2007 and the mother's blood pressure was found to be 170/110 mmHg while she was 35 weeks pregnant. A Caesarean section (C/S) had been performed and a 1900 gr healthy baby was born. She continued CAPD after termination of pregnancy. Her PD catheter was removed nine months later (in September 2008) because of resistant tunnel infection.

DISCUSSION

The incidence of a successful pregnancy in PD is two or three times lower than in hemodialysis. These low rates may be due to hypertonic peritoneum in PD (3). The prognosis of pregnant dialysis patients is thought to be better if residual renal functions are better (3). Similarly, in our patient, residual Kt/Vurea was 4.38 and weekly residual renal clearance was 161.97 and there was no need to change her CAPD solutions.

Maternal hypertension is associated with obstetric hemorrhage, abruptio placenta, and anemia (4). Preterm labor, IUGR, and polyhydramnios are frequent complications that occur in pregnant dialysis patients (1). Our patient had hypertension before her pregnancy. However, her blood pressure values were controlled with antihypertensive therapy consisting of amlodipine and doxasozine during her pregnancy. IUGR was detected together with a maternal blood pressure of 170/110 mmHg at the 35th week and C/S was performed.

In conclusion, it is possible for PD patients to have a healthy baby if the residual renal function is adequate and blood pressure is controlled.

REFERENCES

1. Chou CY, Ting IW, Lin TH, Lee CN: Pregnancy in patients on chronic dialysis: A single center experience and combined analysis of reported results. Eur J Obstet Gynecol Reprod Biol 2008: 136:165-170
2. Asgari E, Bramham K, Shehata H, Makanjuola D: Successful pregnancy in a patient with end-stage renal failure secondary to HIV nephropathy on peritoneal dialysis. Nephrol Dial Transplant 2007: 22:3671
3. Smith WT, Darbari S, Kwan M, O Reilly-Green C, Devita MV: Pregnancy in peritoneal dialysis: A case report and review of adequacy and outcomes. Int Urol Nephrol 2005: 37:145-151
4. Holley JL, Reddy SS: Pregnancy in dialysis patients: A review of outcomes, complications, and management. Semin Dial 2003: 16:384-388