SISTEMA SANITARIO REGIONALE
ASL ROMA 2

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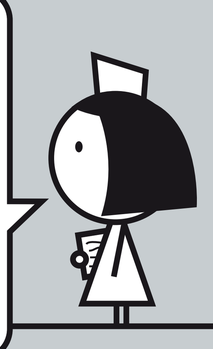
DIALYSIS *and* PREGNANCY: *Our Experience*

Pregnancy in dialysis patients is an exceptional event therefore don't exist publication of guidelines but only cases of clinical experience.
An Italian epidemiological perspective study (G. Piccoli, NDT 2014) compares live-born babies from on-dialysis, kidney transplantation and overall population mothers. This study recalls that the first pregnancy in dialysis patient was in 1971 and since then the fetal survival was increased about 25% per decade. The study setting was between 2000-12; in this period 20 women on hemodialysis and 3 on peritoneal dialysis delivered live-born babies and one woman delivered twins (24 babies). Two of this women were assisted in our dialysis centre.
Our patients were suffering from LES (in remission) and from Nephrotic Syndrome. We can identify the first patient as A and the second as B.

METHODS AND MATERIALS

Patient A (pregnancy in 2001)	Patient B (pregnancy in 2011)
30 years old	37 years old
LES (in remission)	Nephrotic Syndrome
Hypertension	Hypertension
No Diabete mellitus	No Diabete Mellitus
Dialysis age (at childbirth): 12 years	Dialysis age (at childbirth): 7 years

Multi-professional team work (nurse, nephrologist, gynecologist, cardiologist, nutritionist, psychologist) was essential to create an ***assistance protocol*** *and to follow the course of pregnancy.*



We choosed two different types of dialysis in according to clinical needs of each woman.

Methodical dialysis

Patient A	Patient B
AFB (from 28° week)	HDF on line (from 12° week)
Heparin sodium*	Heparin sodium *
K+ 3 (variable according ABG)	K+ 3 (variable according ABG)
HCO3- (variable according ABG)	HCO3- (variable according ABG)
20h/week (from 20° week)	14h/week (from 10°week)
Continues with 20h/week until the childbirth	Increases at 20h/week from 20° week until the childbirth

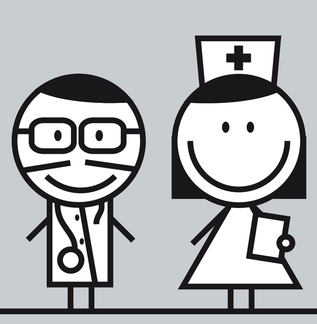
* *Heparin Sodium as anticoagulant of the extracorporeal circuit to avoid transmission to the placenta that may have teratogenic effects on the baby*

Target and warning

Safeguard the proper course of pregnancy	Detect early signs of fetal distress
Safeguard mother's psycophysical healt	Adjust the dialysis setting to the new baby needs
Monitor any complications intradialytic	

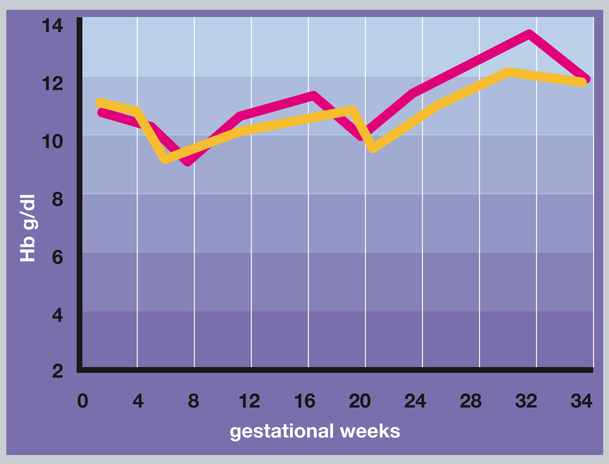
Our Assistance Protocol

Increase dialysis time	Blood and microbiological tests (every week during the third quarter of pregnancy)	Monthly specialized controls (gynecologist, cardiologist, nutritionist, psychologist)
Control systemic blood pressure	Hemogasanalysis every treatment	Haematochemical autoimmunity controls (only for patient A)
Control dry weight	Monitor anemia	
Blood and microbiological tests (every 15 days during the first two quarters of pregnancy)		

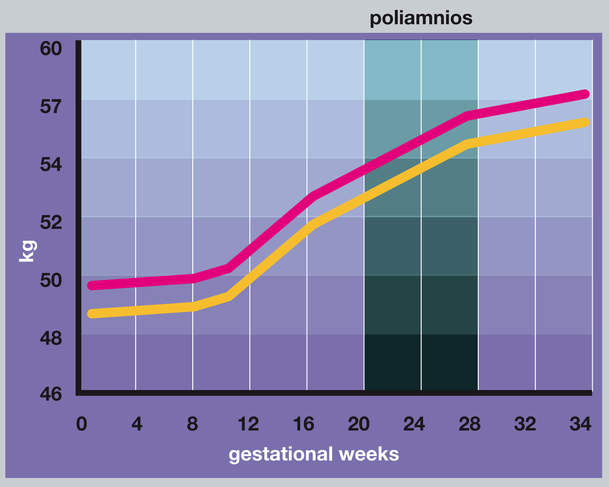


We monitored Anemia and adjust with iron and erythropoietin supplements to keep Hb 10-12, Ht 30-35%, TSAT 30-50%. (tab. 1)

We monitored weight to keep an approximately gain around 1 Kg/month; despite our recommendations both our patient had poliamnios (tab. 2)



Tab. 1 / Hb trend



Tab. 2 / Weight gain

RESULTS

Patient A	Patient B
Poliamnios between 20-26 week	Poliamnios between 22-27 week
No gestational diabetes	No gestational diabetes
Hypertension between 20-34 week	Hypertension between 22-34 week
Caesarean section at 34 week	Caesarean section at 34 week
Birth weight 1.540 Kg.	Birth weight 2.140 Kg.
Index Apgar 9	Index Apgar 9
Baby currently in good health	Baby currently in good health

CONCLUSIONS

In recent years the technological innovations and the increase of biocompatible materials have allowed to improve dialysis treatment and the quality of life of dialysis patients. Thanks to these improvements we could take care of our patients and help them to realize their "dream": to become mother. Dialysis treatment not only helps people to stay alive, it also helps them to live their life as normal as possible and motherhood can be a way.

References

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