

PREGNANCY IN WOMEN ON DIALYSIS : A FRENCH COHORT STUDY

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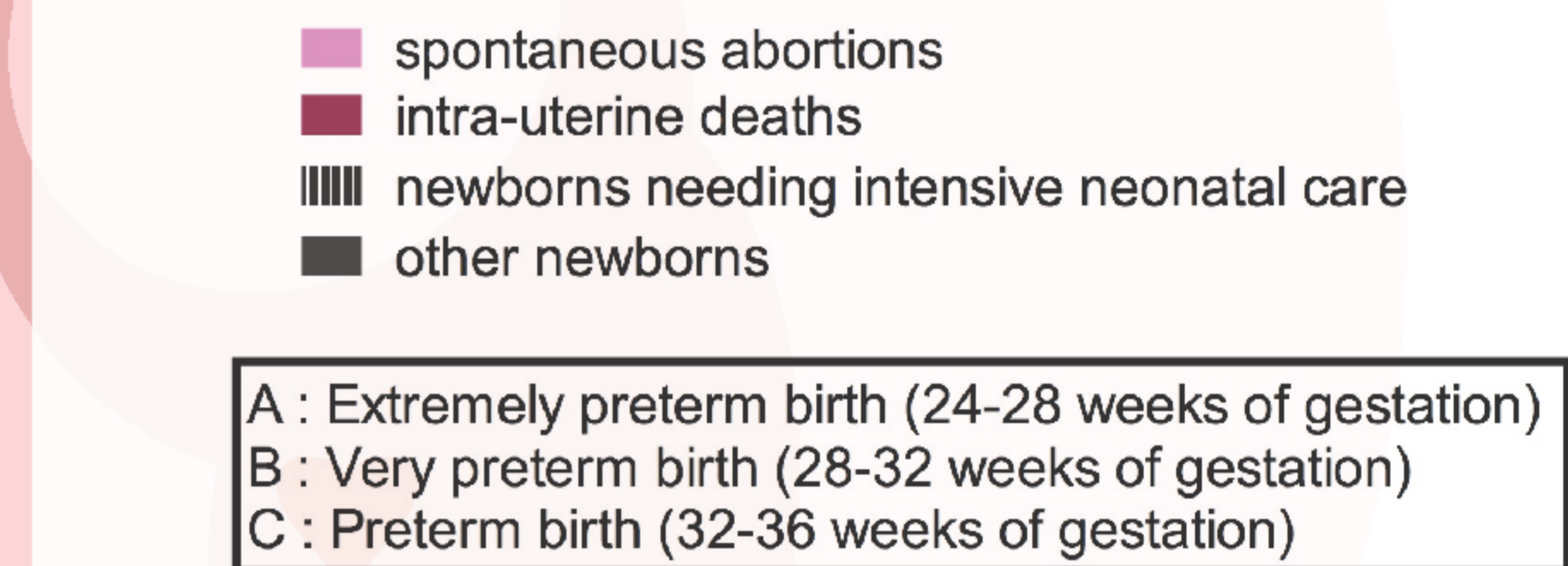
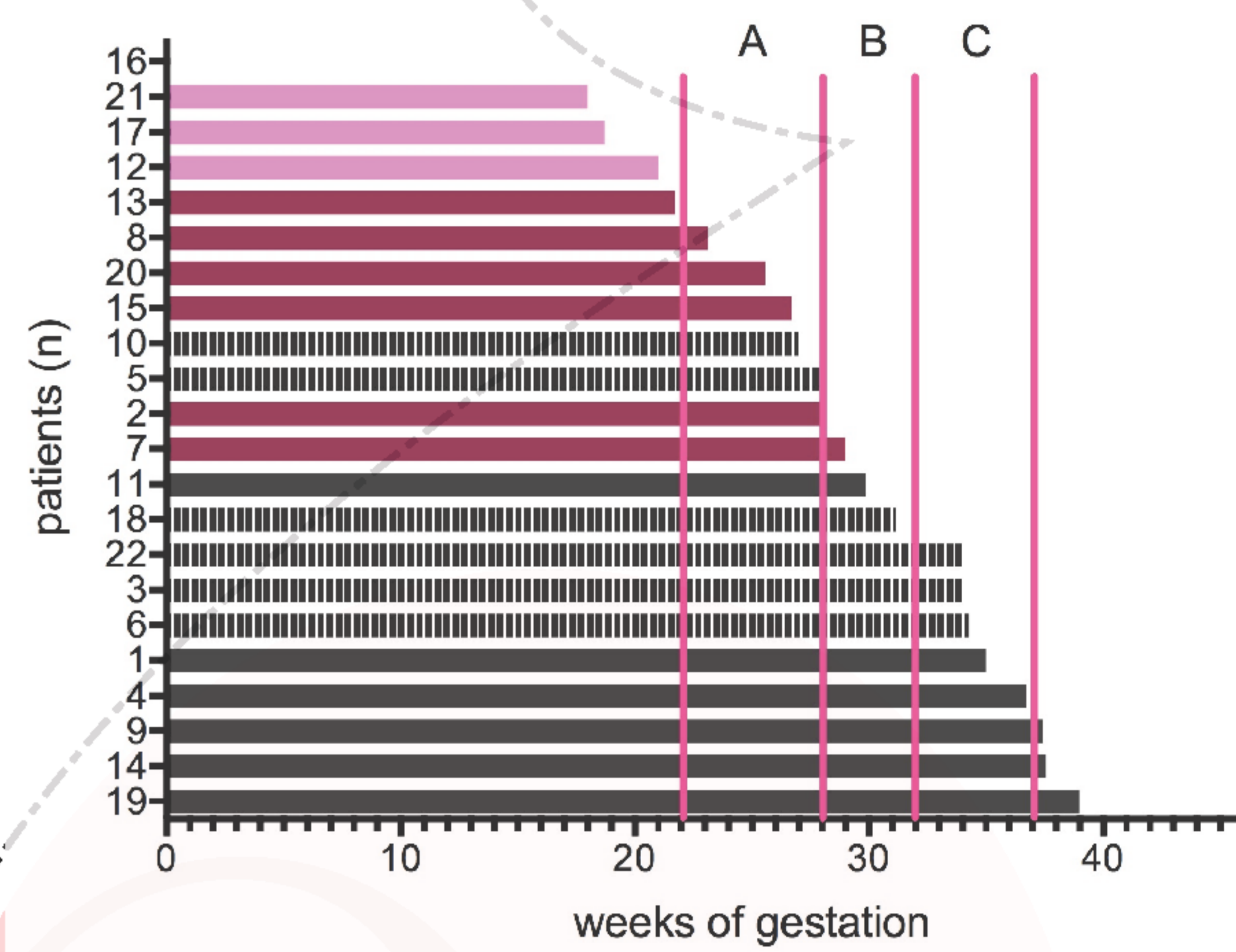
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Objectives Pregnancies in women on chronic hemodialysis are rare even if their number seems to be increasing significantly nowadays. In France, there is few data on maternal and fetal prognosis and on complications related to those pregnancies. Thus, the aim of this study was to describe pregnant women on chronic hemodialysis, followed in medical institutions in the Ile-de-France region, which combine at the same time a dialysis center and a level 3 intensive perinatal center.

Methods A retrospective analysis was performed using data extracted from the French Medical Information System (Programme de Médicalisation des Systèmes d'Information - PMSI) and from local medical databases. A total of 22 pregnancies was recorded between 1998 and 2014 in four french centers.

Results The median age at conception was 33 years. 75% of the women were on chronic hemodialysis before conception and 25% of them had prior history of renal transplant. The median pre-dialysis blood urea level was 10.8 mmol/l (30,2 mg/dL). The median weekly dialysis time was of 16.75 hours. 41% of the pregnancies resulted in adverse outcomes (spontaneous abortions or intra-uterine deaths), 59% resulted in live births, 50% of the newborns needed neonatal intensive care and two-thirds of these newborns required mechanical ventilation. The median neonatal hospital stay was of 123 days. 55,5% and 40% of the pregnant women were diagnosed with foetal growth delay and intra-uterine growth restriction respectively. Only 2 pregnancies were complicated by polyhydramnios. No association was found between pre-dialysis uremia, hemoglobin levels and the weekly dialysis time on the outcome of the pregnancy or on its complications rates. However, it seemed that foetal growth delay was associated with a later term of dialysis intensification.



Maternal medical history	Prior pregnancy	90% (n=18/20)
	History of spontaneous abortion	40% (n= 8/20)
	History of intra-uterine death	15% (n=3/20)
	History of pre-eclampsia	35% (n= 7/20)
Pregnancy data	Age at conception	33 years
	Median week of gestation at diagnosis	8,5
	Time on dialysis before pregnancy	881 days
	Premature delivery threat	13,6% (n=3/22)
	Spontaneous abortions	13,6% (n=3/22)
	Intra-uterine death	27,4% (n=6/22)
	Foetal Growth Delay	55% (n=10/18)
	Foetal Growth Restriction	40% (n=6/15)
	Preeclampsia	33,3% (n=7/21)
	Polyhydramnios	9,5% (n=2/21)
	Cross-section	66% (n=8/12)
	Maternal mortality	1/20
	Neonatal data	Median birth weight
Median hospital stay		123 days
Dialysis data	Hemodialysis	100 %
	Median week of gestation at intensification of dialysis	14
	Median weekly dialysis time	16,75 h
	Median UF per dialysis session	1400 ml
	Median Hb during pregnancy	9,5 g/dL
	Blood transfusions	28,6% (n=6/21)

Table 1: Major Results

Fig. 2: Impact of an early dialysis intensification term on fetal growth

Conclusions This population is at high-risks of maternal and fetal complications. Thus, those pregnancies should be supervised in level 3 intensive perinatal center. Systematic identification of pregnancies in patients on chronic dialysis in France should be performed and these observations should be confirmed in larger studies.

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