

Pregnancy and childbirth in women with thalassemia: past and present

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<https://doi.org/10.3324/haematol.2025.287908>

Received: April 4, 2025.

Accepted: July 21, 2025.

Early view: July 31, 2025.

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Supplementary materials

Table S1 Patient characteristics at the start of the first pregnancy

A: Measurements	Median (Q1-Q3)
Age at first pregnancy (years)	32 (28–35)
Height (m)	1.56 (1.50–1.60)
Weight (g)	52.5 (48.4–59.0)
BMI (g/m ²)	21.6 (20.0–23.8)
Ferritin (ng/mL)	900 (500–1418)
Pre-transfusional hemoglobin (g/dL)	9.5 (9.3–9.9)
Post-transfusional hemoglobin (g/dL)	12.0 (11.0–12.6)
Heart T2* (ms)	33.1 (26.0–40.9)
LIC (mg/g d.w. tissue)	2.8 (1.8–5.8)
LVEF (%)	65 (60–68)
Annual pure red blood cell consumption (mL/kg/year)	147 (125.7–175.0)
Annual blood units transfused	34.5 (21–43)
B: Comorbidities	N (%)*
Erythrocyte antibodies	28 (14.0)
Cirrhosis	-
HCVRNA positivity	54 (24.1)
AntiHCV positivity	120 (53.6)
Active HBV infection	2 (0.9)
HIV	-
Gallstones	91 (40.6)
Cholecystectomy	43 (19.4)
Splenectomy	87 (38.7)
Hypothyroidism	43 (19.3)
Hypoparathyroidism	8 (3.6)
Impaired glucose tolerance	29 (13.0)
Diabetes	3 (1.6)
Hypoadrenalism	-
History of cardiac failure	9 (4.0)
History of major cardiac arrhythmia	6 (2.7)
Other cardiac disease	16 (7.2)
Arterial hypertension	5 (2.2)
History of thrombosis	5 (2.2)
Nephrolithiasis	38 (17.1)
Osteopenia/osteoporosis	162 (81.4)
DFO bone toxicity	27 (13.4)
C: Chelation therapy	N (%)
DFO	92 (43.2%)
DFP	20 (9.4%)
DFX	63 (29.6%)
DFO plus DFP	35 (16.4 %)
DFO plus DFX	1 (0.5%)
DFX plus DFP	2 (0.9%)

Q1-Q3: interquartile range (25th–75th percentile); BMI: Body Mass Index; LIC: Liver Iron Concentration; LVEF: Left Ventricular Ejection Fraction; HCV: Hepatitis C Virus; HBV: Hepatitis B Virus; HIV: Human Immunodeficiency Virus; DFO: desferrioxamine; DFP: Deferiprone; DFX: Deferasirox

Table S2. List of complications of the mother and newborn at/after delivery (more than one complication per woman is possible)

Subject	Complications at/after delivery	N
Mother (n=16)	Postpartum hypertension	3
	Hemolytic anemia	2
	Lumbosacral radiculopathy	2
	Postpartum hemorrhage	2
	Postpartum nephrotic syndrome	2
	Thrombocytosis	2
	Acute renal failure	1
	LFEV reduction	1
	Heart failure	1
	Hypocalcemia	1
	Hysterectomy (placenta accreta)	1
	Palpitations plus supraventricular extrasystoles	1
Newborn (n=36)	Small for Gestational Age	19
	Persisting neural apnea of the newborn	7
	Neonatal jaundice	3
	Respiratory distress	3
	Death*	6
	Sepsis	2
	Congenital cytomegalovirus infection	1
	Disseminated Intravascular Coagulation (DIC) (suspected)	1
	Newborn Malformations**	7

* One newborn had Congenital heart disease that caused cardiac arrest and death

**Congenital pulmonary airway malformation (CPAM) (1); Ventricular septal defect (1); Pulmonary atresia with right ventricular hypoplasia (1); Intestinal atresia (1); Atresia of the esophagus, duodenum, and rectum (1); Esophageal atresia (1); Cerebral malformation (1)

LFEV: Left Ventricular Ejection Fraction

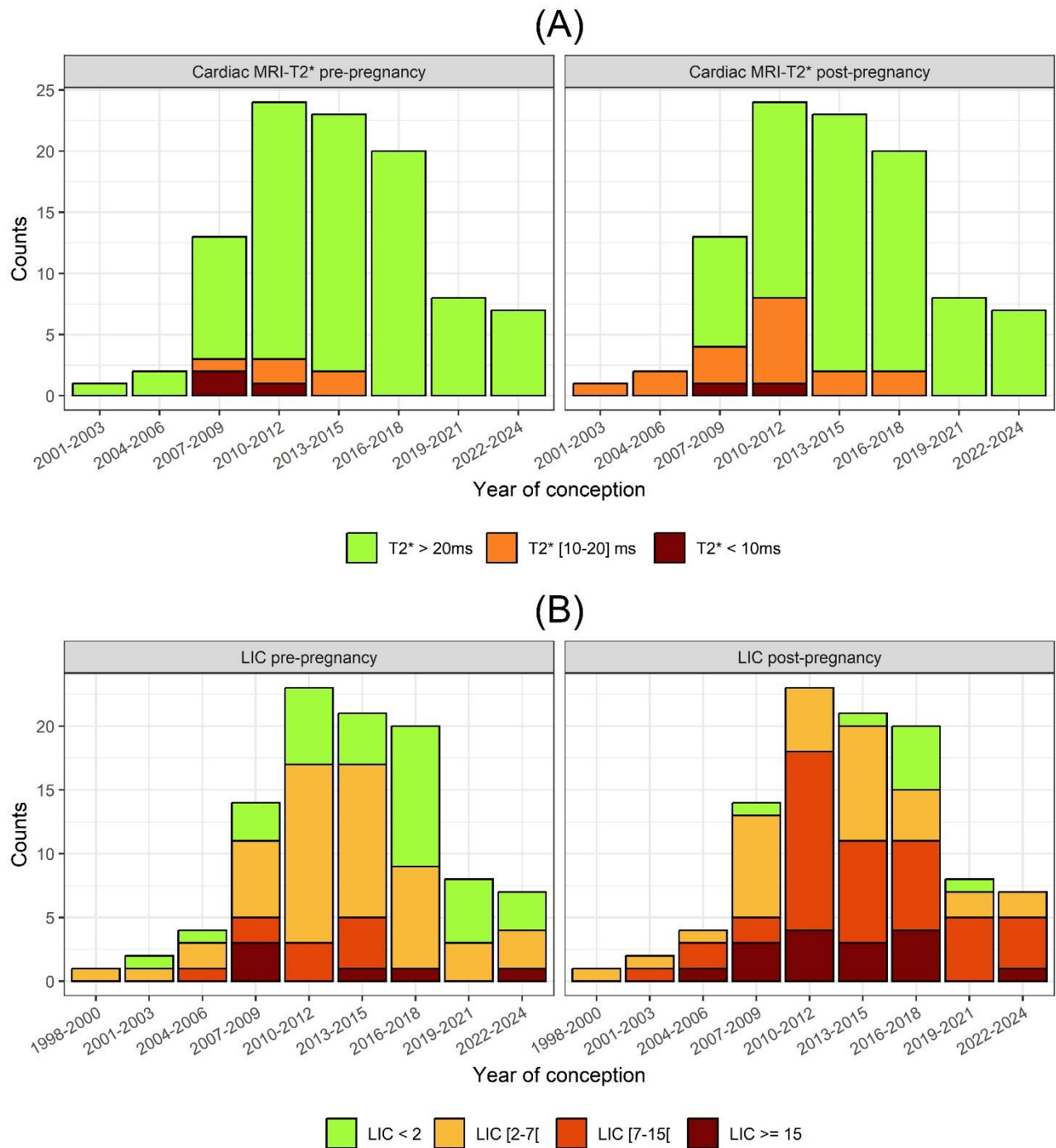


Figure S1. Iron overload. Pre- and post-pregnancy distribution of iron overload: (A) Cardiac MRI-T2*; (B) Liver Iron Concentration (LIC). Pre-pregnancy cardiac T2*: 126/139 T2*>20 ms, 8/139 between 10 and 20 ms, 5/139 <10 ms; 92/126 with pre-pregnancy T2* $\geq$ 20 ms had postpartum values available, 13 showed moderate accumulation, one showed severe accumulation shortly after pregnancy; of these, five patients had pre-pregnancy liver iron concentration (LIC) <2 mg/g d.w., six had LIC of 2–7 mg/g d.w., and two had LIC >7 mg/g d.w. Considering all available pre-pregnancy cardiac T2* values (n=139), we observed a significant increase over the years ($\beta=0.5$, 95%CI:0.22–0.78, $p<0.001$).