

Supplementary Tables for “Influence of timing of initiation of therapeutic hypothermia on brain MRI and neurodevelopment at 18 months in infants with HIE: a retrospective cohort study”

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Table 2 Characteristics of non survivors in early vs. late TH group

	Non Survivors Early TH (N= 13)	Non Survivors Late TH (N=3)	P Value
C-Section, N (%)	7 (53.8)	2 (66.6)	0.7
Male sex, N (%)	10 (76.9)	1 (33.3)	0.1
Gestational Age, mean (SD)	38.3 (1.7)	39 (1)	0.5
BW (kg), mean (SD)	3.21 (0.55)	3.09 (0.37)	0.7
Resuscitation Score, median (IQR)	6 (5 – 6)	6 (5 – 6)	0.8
Apgar Score at 10 minutes, median (IQR)	3 (2 – 3)	2 (1 – 4)	1.0
Arterial cord blood pH, mean (SD)	6.9 (0.2)	7 (0.4)	0.5
Who initiated TH? N (%)			0.9
Centre before advice	5 (38.5)	1 (33.3)	
Centre after advice	3 (23.1)	1 (33.3)	
Transport team	5 (38.5)	1 (33.3)	
NICU	0	0	
Time of referral to CHEO (hours), median (IQR)	0.9 (0.7 – 1.6)	1.6 (1.3 – 3.8)	0.4
Time of arrival of transport team, median (IQR)	2 (1.8 – 2.4)	5 (4.7 – 5.2)	0.08
Time of initiation of TH, median (IQR)	1.6 (1 – 2)	4.1 (4 – 6.4)	<0.0001
Time to target temperature, median (IQR)	3.8 (2.6 – 4.1)	6.8 (5.2 – 8.1)	0.1
Degree of encephalopathy before TH			0.7
Normal or Sarnat 1, N (%)	0	0	
Sarnat 2, N (%)	3 (23.1)	1 (33.3)	
Sarnat 3, N (%)	10 (76.9)	2 (66.6)	
Abnormal Cerebral Function Monitoring*			0.8
Discontinuous	1 (10)	0	
Burst Suppression	3 (30)	0	
Low Amplitude or Flat Trace	6 (60)	1 (100)	
Seizures	10 (76.9)	1 (33.3)	0.1

*In the non-survivors early TH, 10 were monitored with CFM, in the non-survivors late TH, 1 was monitored with CFM

Table 3 Characteristics of survivors vs. non survivors

	Survivors N (%) = 75 (82.4)	Non Survivors N (%) = 16 (17.6)	<i>P</i> value
C-Section, N (%)	42 (56.0)	9 (56.2)	1.00
Male sex, N (%)	43 (57.3)	11 (68.8)	0.6
Gestational age (weeks), mean (SD)	39.1 (1.5)	38.4 (1.6)	0.1
Birth weight (kgs), mean (SD)	3.4 (0.6)	3.2 (0.5)	0.2
Resuscitation Score, median (IQR)	5 (4 – 5)	6 (5 – 6)	<0.0001
Apgar score at 10 minutes, median (IQR)	4 (3 – 6)	3 (1.5 – 3.5)	<0.0001
Arterial cord blood pH, mean (SD)	6.9 (0.15)	6.9 (0.23)	0.9
Who initiated TH?			0.6
Centre before advice, N (%)	22 (29.3)	6 (37.5)	
Centre after advice, N (%)	26 (34.6)	4 (25)	
Transport team, N (%)	21 (28)	6 (37.5)	
NICU, N (%)	6 (8)	0	
Time of referral to CHEO (hours), median (IQR)	1.7 (1 – 2.3)	1.1 (0.8 – 1.6)	0.2
Time of arrival of transport team, median (IQR)	3 (2.2 – 4.6)	2.1 (1.8 – 4.8)	0.3
Time of initiation of TH, median (IQR)	2.6 (1 – 4.4)	1.8 (1.1 – 2.7)	0.1
Time to target temperature, median (IQR)	6.4 (4.5 – 8.5)	3.9 (2.8 – 6)	0.06
Degree of encephalopathy before TH			<0.0001
Normal or Sarnat 1, N (%)	25 (33.3)	0	
Sarnat 2, N (%)	42 (56)	4 (0.25)	
Sarnat 3, N (%)	8 (10.6)	12 (0.75)	
Abnormal Cerebral Function Monitoring*			0.02
Discontinuous	10 (16.4)	1 (9)	
Burst Suppression	11 (18)	3 (27.3)	
Low Amplitude or Flat Trace	3 (4.9)	7 (63.6)	
Seizures	38 (77.6)	11 (22.5)	0.2

*In the survivors, 61 were monitored with CFM, in the non-survivors, 11 were monitored with CFM

Table 6 Abnormal neurodevelopment at 18 months – Description of patients (N=21)

Early or Late TH	Neurodevelopment at 18 months	Moderate to severe impairment¹
Early	global developmental delay, confirmed CP	yes
Early	global developmental delay	yes
Early	global developmental delay, cognitive delay	yes
Early	deafness	yes
Early	global developmental delay, confirmed CP	yes
Early	isolated language delay	-
Early	isolated language delay	-
Early	isolated gross motor delay	-
Early	isolated language delay	-
Early	deafness	yes
Early	isolated language delay	-
Late	global developmental delay	yes
Late	global developmental delay, confirmed CP	yes
Late	confirmed CP, isolated gross motor delay	yes
Late	suspected CP	-
Late	global developmental delay	yes
Late	global developmental delay, confirmed CP	yes
Late	deafness	yes
Late	isolated language delay	-
Late	isolated language delay	-
Late	suspected CP, isolated gross motor delay	-

¹Moderate to severe impairment was defined as confirmed cerebral palsy, deafness, blindness or severe visual impairment, global developmental delay

