RESULTS: A total of 128 obstetricians participated; 70 were randomly allocated to Scenario A and 58 to Scenario B for Case #3. There were no differences in the assessment of the appropriateness and quality of care for the first 2 cases (Table 2). For Case #3, belief that there was an adverse outcome resulted in a worse categorization of the FHR tracing, more frequent perception that CD was performed too late, and more likely judgment that the standard of care had been violated (Table 2). The findings were similar regardless of academic institution, attending or trainee status, or MFM subspecialty.

CONCLUSION: This study confirms the significant impact of hindsight and outcome bias on the interpretation of FHR tracings and the retrospective assessment of the quality of obstetrical care.

Table 1. Case descriptions

Case	Clinical vignette	Outcome Category	Outcome Description
1	Gravida 1 Para 0 at 40 wks. Decision made for cesarean due to FHR tracing. CD done 20 minutes after last section of EFM.	*"Healthy Outcome"*	BW 3,000 grams; Apgars 8^1, 9^5 UA pH = 7.20, pCO_2 44 mm, BE -4 mEq/L
2	Gravida 2 Para 0 at 39 wks. SROM with clinical chorioamnionitis. CD done 14 minutes after last section of EFM.	*"Adverse outcome"*	BW 3,608 grams; Apgars 2^1, 4^5 UA pH = 6.89, pCO_2 94 mm, BE -16 mEq/L
3	Gravida 1 Para 0 at 40 wks. Pt progressed to 2nd stage of labor. After 40 minutes of pushing, decision made for CD which was done 12 minutes after last section of EFM.	**Scenario A** *"Healthy Outcome"*	BW 3,406 grams; Apgars 6^1, 8^5 UA pH = 7.15, pCO_2 54 mm, BE -6 mEq/L *Newborn did well, no problems, and discharged home with mother*
		Scenario B *"Adverse Outcome"*	BW 3,406 grams; Apgars 2^1, 4^5 UA pH = 7.00, pCO_2 72 mm, BE -12 mEq/L *Newborn required immediate resuscitation, developed seizures, and was treated for HIE with head cooling protocol*

Table 2. Obstetrician's responses for three case scenarios comparing those with alternative outcomes for Case #3 (Scenario A = normal umbilical pH and no neonatal complications or Scenario B = metabolic acidemia and neonatal encephalopathy).

*All participants received the same clinical data and outcomes for both Case #1 and Case #2.

	Scenario A Group	Scenario B Group	RR (95% CI)	P value
	N=70	N=58		
Question 1 *	"Healthy outcome"			
FHR category at delivery I II III	 1 (1.4) 49 (70) 20 (28.6)	 0 (0) 44 (75.9) 14 (24.1)		0.67
CD performed too late	18 (25.7)	18 (31)	1.2 (0.7-2.1)	0.51
Management below the standard of care	12 (17.1)	10 (17.2)	1.0 (0.5-2.2)	0.99
Question 2*	"Adverse outcome"			
FHR category at delivery I II III	 0 (0) 7 (10) 63 (90)	 0 (0) 15 (25.9) 43 (74.1)		0.02
CD performed too late	63 (90)	54 (93.1)	1.0 (0.9-1.2)	0.53
Management below the standard of care	57 (81.4)	49 (84.5)	1.0 (0.9-1.2)	0.65
Question 3	"Healthy outcome"	"Adverse outcome"		
FHR category at delivery I II III	 1 (1.4) 54 (77.1) 15 (21.4)	 0 (0) 31 (53.4) 27 (46.6)		0.002
CD performed too late	34 (48.6)	46 (79.3)	1.6 (1.2-2.2)	0.0001
Management below the standard of care	26 (37.1)	42 (72.4)	2.0 (1.4-2.8)	0.0001

Data expressed as N (%)

93 Acupuncture version of breech presentation: a randomized placebo-controlled single-blinded trial

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OBJECTIVE: To assess the effectiveness of acupuncture and heat on acupoint BL67 for version of breech presentation.

STUDY DESIGN: This was a randomized placebo-controlled single-blind trial including patients recruited in a university hospital center between 32 0/7 and 34 0/7 weeks of gestation. Patients were randomized to either acupuncture or placebo group, and were analyzed in their initial allocation group. The treatment was applied to point BL 67 for 3 sessions. If version had not occurred, external cephalic version was offered. If breech presentation persisted at delivery, the mode of delivery was discussed with the patient in accordance with the department's protocol. Statistical analysis was conducted using Bayesian methods. The trial was registered at the US National Institutes of Health (ClinicalTrial.gov) # NCT00813683.

RESULTS: The study included 259 women randomized into two groups: acupuncture (n=130) or placebo (n=129). The principal endpoint was the rate of cephalic presentations at ultrasound examination performed between 35 to 36 weeks of gestation. A total of 49 (37.7%) fetuses were in cephalic presentation in the acupuncture group versus 37 (28.7%) in the placebo group: OR 1.57 [0.90-2.54], Pr OR>1 = 94.3%. At delivery, the rate of fetuses in cephalic presentation was not significantly different in both groups (58.5% versus 51.9% ; OR 1.34 (CI 0.80-2.13).

CONCLUSION: Our study suggests that acupuncture and heating on acupoint BL67 promotes fetal cephalic version. Further studies might investigate effectiveness of other protocols including stimulation of others acupoints by trained acupuncturists and self-administration of moxibustion.

Characteristics and outcomes of pregnancy, delivery and neonate.

Variables	Acupuncture(n=130)	Placebo(n=129)	OR [CI] or diff [CI]	Pr OR>1 or diff>0
Cephalic presentation after acupuncture/placebo	49(37.7%)	37(28.7%)	1.57 [0.90-2.54]	94.3%
Cephalic presentation after attempt of external cephalic version	25/63(38.1%)	22/66(33.3%)	1.34 [0.62-2.57]	73.3%
Mean gestational age at delivery (weeks)	39.8 ±0.1	39.5 ±0.1	0.32 [-0.03-0.67]	96.3%
Preterm delivery < 37 weeks' gestation	1(0.8%)	8(6.2%)	0.24 [0.02-0.76]	0.8%
Cephalic presentation at delivery	76(58.5%)	67(51.9%)	1.34 [0.80-2.13]	85.4%
Vaginal delivery : total	68(52.3%)	59(45.7%)	1.34 [0.80-2.11]	85.4%
Vaginal delivery : breech	7(5.4%)	6(4.7%)	1.34 [0.39-3.42]	60.3%
Cesarean section : total	62(47.7%)	70(54.3%)	0.79 [0.47-1.25]	14.7%
Planned cesarean section for breech presentation	36(27.7%)	47(36.4%)	0.70 [0.40-1.13]	6.6%
Mean birth weight (g)	3 244 ±450	3 229 ±517	16 [-100-140]	60.0%
Birth weight > 4 000 g	3(2.4%)	6(4.7%)	0.65 [0.13-1.85]	16.3%
Apgar score < 5	0(0%)	1(0.8%)	0.98 [0.01-5.30]	24.8%
Cord blood pH below 7.00	1(0.8%)	1(0.8%)	2.02 [0.10-9.60]	49.7%

OR: odds ratio; diff: estimated difference; CI: credibility interval, Pr: probability.
Binary variables are given as number and percentage. Statistical analysis is presented as an OR with 95% credibility interval and probability of exceeding 1.
Continuous variables are given as mean and standard deviation. Statistical analysis is presented as a difference (result of acupuncture group minus placebo group) with 95% credibility interval and probability of exceeding 0.