

Uterine massage to reduce postpartum hemorrhage after vaginal delivery

Abdel-Aleem H, Singata M, Abdel-Aleem M, Mshweshwe N, Williams X, Hofmeyr GJ.

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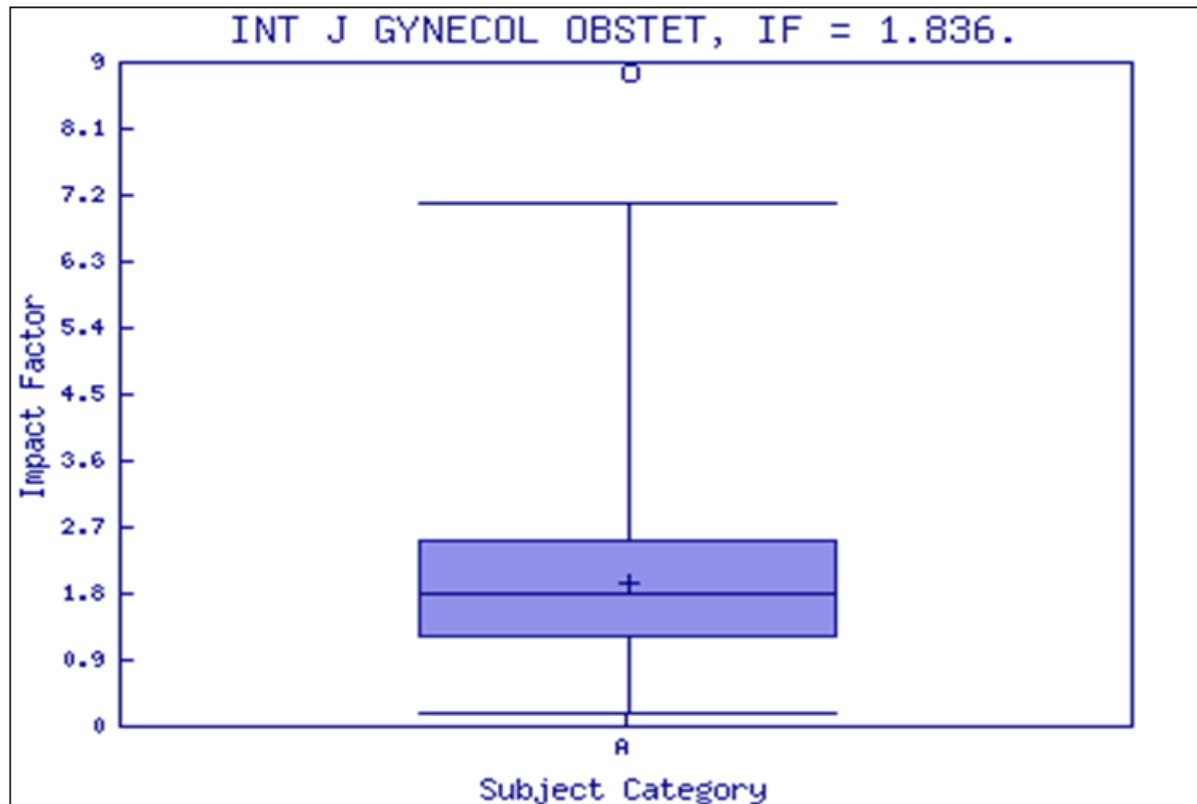
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報告人：周寶鈺

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步驟 1：研究探討的問題為何？

研究族群/ 問題 (Population/Problem)	介入措施 (Intervention)	比較 (Comparison)	結果 (Outcomes)
陰道分娩的 產婦	(Group 1) = Oxytocin 10 iu im 胎兒娩出後 (Group2) =Uterine massage (Group3) =Uterine massage +oxytocin 10 iu im	(Group2 vs.Group3) (Group2 vs.Group1) (Group3 vs.Group1)	◆ <u>Primary outcomes</u> (1) 30分鐘內出血量>300ml (2) 新生兒娩出後胎盤娩出_≥30分 ◆ <u>Secondary outcome</u> (1) 出血量(>500ml/1000ml) (2) 胎盤娩出_≥60分 (3) 額外使用宮縮劑 (4) 血色素(<8/10g/dl) (5) 輸血 (6) 人工移除胎盤



步驟 2：研究的品質有多好？（內在效度）



招募 (Recruitment) — 受試者是否具有代表性？

最好的狀況是？(可以在哪裡找到這些資訊)

我們是否知道病人族群為何(收案場所、納入／排除條件)？在理想情況下，納入本研究之受試者應具有連續性(有時為隨機取樣)，了解符合收案條件的對象且簽署同意書。

*A randomized controlled trial conducted in Egypt and South Africa between September 2006 and February 2009. (the Department of Obstetrics and Gynecology, Women's Health Center.

*Ethical approval for the study was obtained from the Ethics Committee.

*Pregnant women who were expected to give birth normally were given information about the study and invited to participate.

*Those who agreed gave written informed consent.

***Exclusion criteria** were medical complications such as hypertension and diabetes, previous cesarean delivery, and an abdominal wall that was not thin enough to allow easy palpation of the uterus after delivery.

評讀結果：☒ 是 ☐ 否 ☐ 不清楚

分派 (Allocation) — 分派方式是否隨機且具隱匿性？

最好的狀況是？（可以在哪裡找到這些資訊）

最理想的方式是以中央電腦進行隨機分配此方式常用於中心試驗，而較小的試驗可由獨立人員（如：醫院藥師）「監督」隨機分配的過程

***If labor progressed to spontaneous vaginal delivery, the women were allocated to 1 of 3 groups by selecting the next number in a computer-generated random number sequence.**
***the allocated group was noted inside opaque sealed envelopes.**

評讀結果：☑ 是 ☐否 ☐不清楚



…每個組別，在研究開始時的情況是否相同？

最好的狀況是？（可以在哪裡找到這些資訊）

Table 1

Baseline characteristics of patients included in the trial in Assiut and South Africa.^{a,b}

Characteristics	Oxytocin (group 1)		Uterine massage (group 2)		Uterine massage and oxytocin (group 3)	
	Assiut (n=309)	S. Africa (n=334)	Assiut (n=324)	S. Africa (n=338)	Assiut (n=318)	S. Africa (n=341)
Age, y	24.31 ± 4.52	27.4 ± 5.8 (n=331)	24.16 ± 4.95	27.1 ± 5.9 (n=334)	25.07 ± 5.31	27.5 ± 6.0 (n=339)
Primiparous	104 (33.5)	104/297 (35.0)	111 (34.2)	113/307 (36.8)	110 (34.6)	106/318 (33.3)
Parity 4+	24 (7.7)	14/297 (4.7)	27 (8.3)	8/307 (2.6)	37 (11.6)	12/318 (3.8)
Duration of pregnancy, wk	38.50 ± 1.88	37.7 ± 3.0 (n=259)	38.38 ± 1.90	37.9 ± 2.3 (n=265)	38.35 ± 1.83	37.6 ± 3.1 (n=277)
Maternal height, cm	155.98 ± 6.90	-	156.13 ± 7.31	-	156.92 ± 7.54	-
Maternal weight after birth, kg	64.73 ± 10.26	-	65.20 ± 10.13	-	65.24 ± 9.61	-
Uterotonics for labor induction	35 (11.3)	10/320 (3.1)	44 (13.6)	10/325 (3.1)	41 (12.9)	12/331 (3.6)
Weight of newborn, g	3161.29 ± 423.4	3198 ± 500 (n=328)	3147.91 ± 411.3	3141 ± 517 (n=335)	3187.64 ± 388.1	3166 ± 493 (n=333)
Spontaneous delivery	307	-	323	-	316	-
Operative vaginal delivery	3	-	1	-	2	-
Episiotomy or perineal tear	134 (43)	-	150 (46.3)	-	142 (44.7)	-

P=0.04

^a Values are expressed as mean ± SD or number (percentage).

^b In Assiut the data were complete for all baseline data, so the denominator is the same.

評讀結果：☑ 是 ☐否 ☐不清楚

維持 (Maintenance) – 各組是否給予相同的治療 最好的狀況是？(可以在哪裡找到這些資訊)

各研究組別之間，除了對病人的介入之外，其餘的治療應完全相同 (即為了執行本研究所增加的治療、檢驗或評估應相同)

Group 1 received routine management with 10 IU of oxytocin given intramuscularly according to routine hospital policy (usually after delivery of the anterior shoulder or after delivery of the neonate). Group 2 was given sustained uterine massage shortly after delivery by the research midwives; massage was sustained for 30 minutes and involved manual stimulation of the whole surface of the uterus using steady repetitive movements, as firmly as could be achieved without causing distress to the mother. Injections of oxytocin were delayed until after the 30-minute period of massage and blood collection, unless blood loss of 500 mL was measured before that time. Group 3 received combined routine management with oxytocin plus sustained uterine massage.

…是否有足夠的追蹤 (Follow up)

最好的狀況是？

評讀結果：☑ 是 ☐否 ☐不清楚

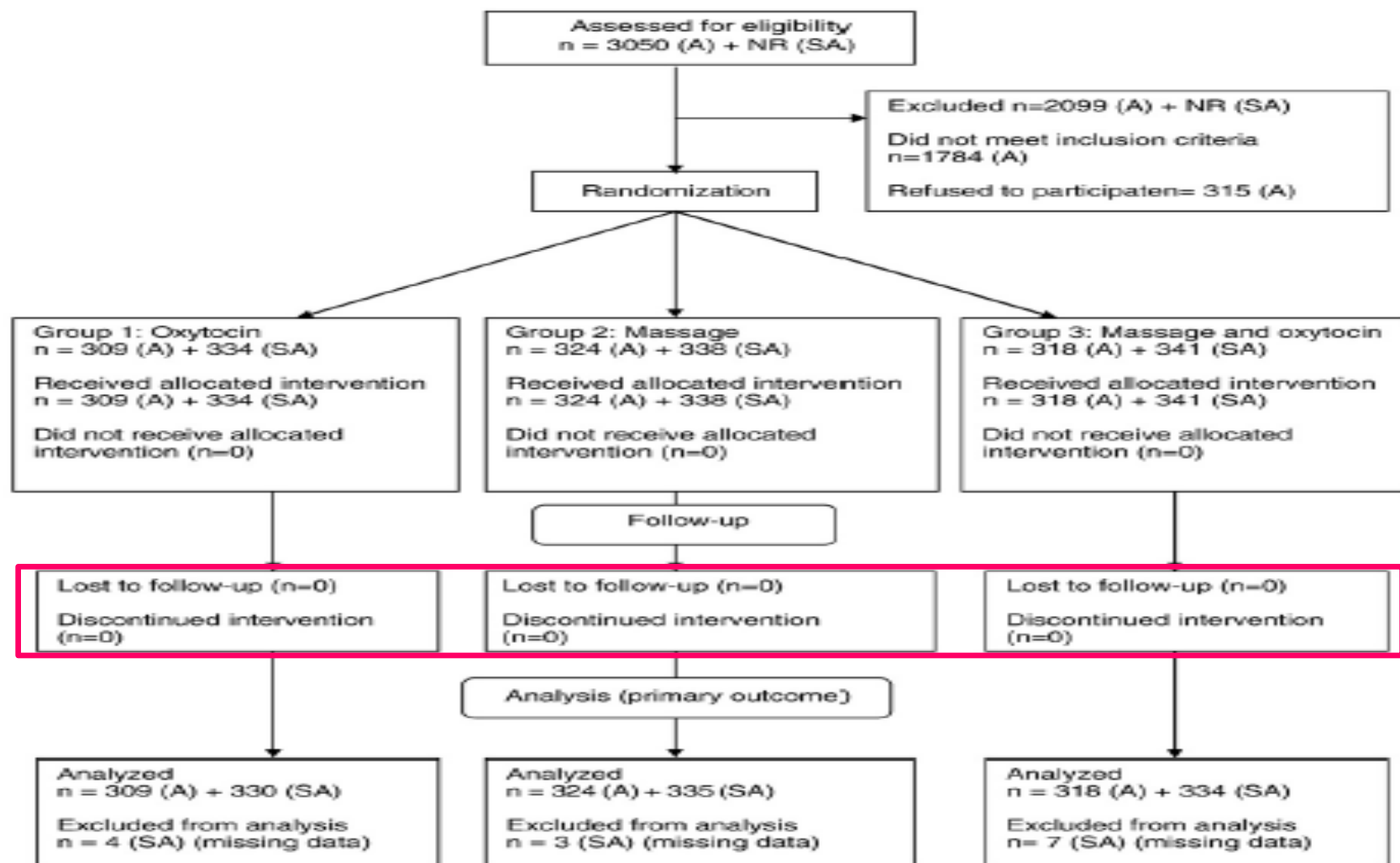


Fig. 1. Flow chart of patients at each stage of the trial from each center: Assiut (A) and South Africa (SA). Abbreviation: NR, not recorded.

評估 (Measurement) —

受試者與評估者是否對治療方式及 (或) 評估目的維持盲法 (Blind)

最好的狀況是？ (可以在哪裡找到這些資訊)

在客觀結果 (如：死亡) 方面，盲法的重要性較低，但在主觀結果 (如：症狀或功能) 方面，評估者維持盲法非常重要

評讀結果：☐是 ☒否 ☐不清楚



步驟 3：研究結果的意義為何？

Table 2
Outcomes and comparisons of treatment with oxytocin, uterine massage, or both treatments.^a

Outcomes	Results			Comparisons		
	Oxytocin (group 1)	Uterine massage (group 2)	Uterine massage + oxytocin (group 3)	Uterine massage vs uterine massage + oxytocin (group 2 vs group 3)	Uterine massage vs oxytocin (group 2 vs group 1)	Uterine massage + oxytocin vs oxytocin (group 3 vs group 1)
Primary outcomes						
Blood loss >300 mL within 30 minutes						
Assiut	40/309 (12.9)	67/324 (20.7)	35/318 (11.0)	1.88 (1.29–2.74)	1.70 (1.11–2.61)	0.83 (0.51–1.35) N.S.
S. Africa	52/330 (15.8)	99/335 (29.6)	76/334 (22.8)	1.30 (1.00–1.68)	2.24 (1.54–3.27)	1.57 (1.06–2.33) Sig.
Placenta delivered ≥30 minutes after delivery of newborn						
Assiut	0/309 (0)	1/324 (0.3)	0/318 (0)	2.94 (0.12–72.01)	2.86 (0.12–69.9)	NE N.S.
S. Africa	11/325 (3.4)	4/334 (1.2)	9/337 (2.7)	0.45 (0.14–1.44)	0.35 (0.11–1.10)	0.79 (0.33–1.88)
Secondary outcomes						
Blood loss ≥500 mL in 30 minutes						
Assiut	11/309 (3.5)	25/324 (7.7)	9/318 (2.8)	2.73 (1.29–5.75)	2.17 (1.09–4.33)	0.79 (0.32–1.93)
S. Africa	11/330 (3.3)	40/335 (11.9)	32/334 (9.6)	1.25 (0.80–1.93)	3.58 (1.87–6.86)	3.07 (1.52–6.21)
Blood loss ≥1000 mL in 30 minutes						
Assiut	0/309	2/324 (0.6)	0/318	NE	NE	NE
S. Africa	1/330 (0.30)	2/335 (0.60)	3/334 (0.90)	NE	NE	NE
Placenta delivered ≥60 minutes after delivery of newborn						
Assiut	0/309	0/324	0/318	NE	NE	NE
S. Africa	4/325 (1.2)	0/334	0/337	NE	NE	NE
Additional uterotonics						
Assiut	17/309 (5.5)	50/324 (15.4)	19/318 (6.0)	2.58 (1.56–4.28)	2.81 (1.65–4.75)	1.09 (0.58–2.05)
S. Africa	3/313 (0.96)	5/317 (1.6)	2/320 (0.63)	2.52 (0.49–12.91)	1.65 (0.40–6.83)	0.65 (0.11–3.88)
Other procedures for postpartum hemorrhage						
Assiut	0/309	5/324 (1.5)	4/318 (1.3)	1.23 (0.33–4.62)	10.49 (0.58–189.0)	8.75 (0.47–161.8)
S. Africa	1/313 (0.32)	1/316 (0.32)	1/320 (0.31)	1.01 (0.06–16.12)	0.99 (0.06–15.77)	0.98 (0.06–15.57)
Hemoglobin <8 g/dL after 12–24 h						
S. Africa	8/191 (4.2)	9/190 (4.7)	5/191 (2.6)	1.81 (0.62–5.30)	1.13 (0.45–2.87)	0.63 (0.21–1.88)
Hemoglobin <10 g/dL after 12–24 h						
S. Africa	43/191 (22.5)	52/190 (27.4)	43/191 (22.5)	1.22 (0.86–1.73)	1.22 (0.86–1.73)	1.00 (0.69–1.45)
Blood transfusion						
Assiut	2/309 (0.65)	4/324 (1.2)	0/318	8.83 (0.48–163.4)	1.91 (0.35–10.34)	0.19 (0.01–4.03)
S. Africa	2/311 (0.64)	3/318 (0.94)	4/319 (1.26)	0.75 (0.17–3.33)	1.47 (0.25–8.72)	1.95 (0.36–10.57)
Manual removal of placenta or placenta not delivered after 30 minutes						
Assiut	0/309	2/324 (0.6)	4/318 (1.3)	0.49 (0.09–2.66)	4.77 (0.23–98.9)	8.75 (0.47–161.8)
S. Africa	11/325 (3.4)	4/334 (1.2)	9/337 (2.7)	0.45 (0.14–1.44)	0.35 (0.11–1.10)	0.79 (0.33–1.88)

步驟 3：研究結果的意義為何？

- ◆ The incidence of blood loss of 300 mL or more within 30 minutes of delivery was significantly higher in the massage group than in the massage plus oxytocin (RR 1.88; 95% CI, 1.29–2.74 in Assiut, and RR 1.3; 95% CI, 1.00–1.68 in SA) and the oxytocin only group (RR 1.7; 95% CI, 1.11–2.61 in Assiut, and RR 2.24; 95% CI, 1.54–3.27 in SA).



結論

- WHO：在醫療資源缺乏的區域，子宮按摩不失為最佳預防產婦產後出血的措施之一
- 本研究重要結論
 - 「子宮按摩」對於降低分娩後出血的效果，沒有「使用Oxytocin」者好
 - 沒有實證證明，已使用Oxytocin的婦女，給予子宮按摩可獲得額外益處



臨床現況

產房：

- ✓ 新生兒娩出/胎盤娩出(時間點依醫師醫囑)即給予
oxytocin 1Amp(10 unit) in Lactated Ringer 500ml
full run then Lactated Ringer run 40ml/hr + 持續
觀察出血量

產後病房：

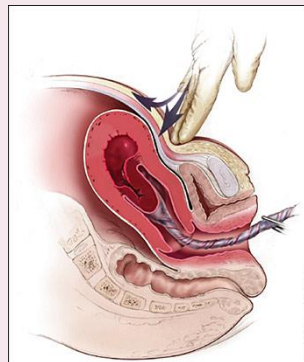
- ✓ 每班評估子宮收縮、出血量及衛教按摩子宮以促進子宮收縮
- ✓ 口服子宮收縮 Ergometrine 0.2 mg po qid



討論

於產房陰道分娩後，若產婦已使用Oxytocin，可以不進行子宮按摩？

- ✓ 同意：6人
- ✓ 懷疑：9人
- ✓ 不同意：2人





謝謝您的聆聽