

First- and second-degree post-partum perineal lacerations: non-surgical versus surgical management. A meta-analysis of randomized controlled trials

Alessandro Petrecca MD, Gabriele Saccone MD, Mymy Nguyen MD, Chiara Tersigni MD PhD, Tullio Ghi MD PhD, Vincenzo Berghella MD

Objective

To compare non-surgical versus surgical management of first and second-degree post-partum perineal lacerations in terms of perineal pain, pain killer use, dyspareunia and wound healing

Main Outcomes

The primary outcome was Pain score assessed by VAS Scale 24 hours after delivery. Secondary outcomes were pain at 10 days and at 8 weeks; pain killer use at 10 days and 3 months; and dyspareunia at 3 months.

Methods

Medline, Cochrane Library, EMBASE, Pubmed Central, Scopus, ClinicalTrial.gov were electronically searched from their inception to December 2024. We included all RCTs comparing non-surgical versus surgical management of first and second-degree perineal post-partum lacerations. PROSPERO No. CRD420250652756.

Results

Five RCTs including 522 pregnancies were analyzed. Non-surgical management of first and second-degree perineal lacerations was associated with **decreased VAS Scale score at 24 hours** (1.9 vs 2.3, p value = 0.04) **and reduced pain killer use at 24 hours** (RR 0.71, 95% CI 0.52 to 0.98), compared to surgical management. Incidences of mid- and late- pain assessment and analgesic use, as well as of dyspareunia and wound healing were similar in the two groups.

Conclusions:
Non-surgical management of first and second-degree perineal lacerations is associated with **decreased incidence of VAS pain scores and analgesic use at 24 hours**, but similar dyspareunia and wound healing, compared to surgical management.

	VAS Scale at 24 hours	No. of patients reporting any pain at 24-48 hours	McGill Pain Question naire at 24 hours	McGill Short Form at 24 hours
			median (range)	
Lundquist 2000 ⁽⁹⁾	NR	12/40 vs 8/38	NR	NR
Fleming 2003 ⁽¹⁰⁾	2.2 (0–7.5) vs 2.2 (0–4.9)	NR	10 (0-44) vs 11 (0-33)	NR
Swenson 2019 ⁽¹²⁾	NR	NR	NR	7 (7-13) vs 8.5 (6-15)
Lalleman t 2022 ⁽¹³⁾	1.69 [1.65] vs 2.38 [2.35]	NR	NR	NR
Total	1.9 vs 2.29	12/40 vs 8/38	10 (0-44) vs 11 (0-33)	7 (7-13) vs 8.5 (6-15)
I2	NA	0	NA	NA
RR or MD (95% CI)	p value = 0.04	1.43 (0.66-3.10)	NA	NA