Chronic pain after caesarean section: prevalence, impact and risk factors

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Background and Goals

Chronic post-surgical pain (CPSP), as defined by International Association for the Study of Pain, is pain that persists for more than 3 months after surgery and other causes are excluded. The caesarean section (CS) is one of the most performed surgeries currently and it is therefore fundamental to know the incidence and impact of chronic pain after CS and how to prevent it. The aim of this study was to **examine the prevalence and impact of CPSP after CS and to evaluate potential risk factors.**

MATERIALS AND METHODS

- Women undergoing CS between January and June 2016 were included and interviewed by telephone one year after and data from our Acute Pain Unit database was consulted.
- Questions were about preoperative demographic and psychological factors, intraoperative clinical factors, acute postoperative pain and pain after 3, 6 and 12 months.
- Pain was evaluated with Visual Analogical Scale (VAS) from 0 to 10 and we used Brief Pain Inventory (BPI) to assess impact on daily life. We considered CPSP if VAS>0 after 3 months.

RESULTS AND DISCUSSION

Table 1 – Sample physical description

Variable	Median (minimum - maximum) or Mean±Standard deviation (SD)
Age	33,0±3,7 years
Gestacional age	38 (30 - 42) weeks
Weight at end of pregnancy	77,5 ±12,3 kg
Height	1,64 ±0,1 m
Body mass index	28,8 ±4,4 kg/m²

Table 2 – Preoperative demographic and psychological factors, intraoperative clinical factors, post-operative clinical factors

Variable	N (%)
Education	High School: 32 (24,4%) Bachelor: 52 (39,7%)
Depression / anxiety	Depression : 9 (6,9%)/Anxiety: 7 (5,3%)
Previous abdominal surgery / CS	26 (19,8%)
Previous chronic pain	15 (11,5%)
Induced labour	32 (24,4%)
Closing technique	Staple : 84 (64,1%) Intradermic: 36 (27,5%)
Elective/ emergent	Elective: 32 (24,4%) Emergent : 99 (75,6%)
Labour analgesia	70 (53,4%)
Breastfeeding	109 (83,2%)
Post-partum depression	9 (6,9%)
Paresthesia	18 (13,7%)
Infection	5 (3,8%)

Table 3 – Pain assessment during hospitalization

Variable	Mean±SD
VAS at rest within the first 24 hours	5,4 ± 2,1
VAS on movement on the first 24 hours	6,4± 2,2
VAS during stay	4,1± 2,0

Graphic 1– Analgesic protocol distribution

Graphic 2–Analgesic/ Anesthetic technique distribution

Table 4 – Pain assessment after discharge

Variable	N(%)	Median (minimum - maximum)
VAS 3rd month	25 (19,1%)	3,0 (2 - 8)
VAS 6th month	19 (14,5%)	3,0 (1 - 8)
Current VAS	11 (8,4%)	2,0 (1 - 6)

Table 5 – Comparison of chronic pain with different variables

Variable	P value
Gestacional age	P=0.030
VAS on movement on the first 24 hours	P=0.044

CONCLUSION

- Although prevalence of CPSP after CS was 19%,** for most women included it did not have impact in their lives.
- Women with higher average pain intensity on movement within 24 h postoperatively have a greater risk of CPSP after CS and therefore **attempts to better manage postoperative pain are needed in CPSP prevention.**