

Link Between Intensity-trajectories Of Acute Postoperative Pain And Risk Of Chronicization After Breast And Thoracopulmonary Surgery

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Abstract : Introduction: The risk factors for the chronicization of postoperative pain are numerous and often intricately intertwined. Among these, the severity of acute postoperative pain is currently recognized as one of the most determining factors. Mastectomy and thoracotomy are described as among the most painful surgeries and the most likely to lead to chronic post-surgical pain (CPSP). Objective: To examine the aspects of acute postoperative pain potentially involved in the development of chronic pain following breast and thoracic surgery. Patients and Methods: A prospective study involving 164 patients was conducted over a six-month period. Postoperative pain (during mobilization) was assessed using a Visual Analog Scale (VAS) at various time points after surgery: Day 0, 1st, 2nd, 5th days, 1st and 6th months. Moderate to severe pain was defined as a VAS score ≥ 4 . A comparative analysis (univariate analysis) of postoperative pain intensities at different evaluation phases was performed on patients with and without CPSP to identify potential associations with the risk of chronicization six months after surgery. Results: At the 6th month post-surgery, the incidence of CPSP was 43.0%. Moderate to severe acute postoperative pain (in the first five days) was observed in 64% of patients. The highest pain scores were reported among thoracic surgery patients. Comparative measures revealed a highly significant association between the presence of moderate to severe acute pain, especially lasting for ≥ 48 hours, and the occurrence of CPSP (p-value <0.0001). Likewise, the persistence of subacute pain (up to 4 to 6 weeks after surgery), especially of moderate to severe intensity, was significantly associated with the risk of chronicization at six months (p-value <0.0001). Conclusion: CPSP after breast and thoracic surgery remains a fairly common morbidity that profoundly affects the quality of life. Severe acute postoperative pain, especially if it is prolonged and/or with a slow decline in intensity, can be an important predictive factor for the risk of chronicization. Therefore, more effective and intensive management of acute postoperative pain, as well as longitudinal monitoring of its trajectory over time, should be an essential component of strategies for preventing chronic pain after surgery.

Keywords : chronic post-surgical pain, acute postoperative pain, breast and thoracic surgery, subacute postoperative pain, pain trajectory, predictive factor

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