胸腔手術病人的術後疼痛、肺功能和肩功能之評估

The Evaluation of Pain Response, Pulmonary and Shoulder Functions in Patients Receiving Thoracic Surgery

中文摘要

本研究是要探討胸腔手術病人術後的肺功能、肩功能和術後疼痛
的改變及兩者與疼痛的關係。研究採用前瞻性縱貫式研究設計，以方便取樣方式收案 30 位接受胸腔手術的病人，以 0 - 10 分數字型量表測量疼痛程度和記錄疼痛部位、性質、型態，以肺量計來測量肺功能的變化，以美國肩肘外科醫師會標準肩評估量表（American Shoulder and Elbow Surgeons Standardized Shoulder Assessment Form [ASES]）來測量術後肩功能的變化，測量時間爲術前一天、術後第一至七天、術後二週和術後六週。本研究之研究結果顯示病人術後六週內的肺功能、肩功能和術後疼痛有顯著的變化，用力吐氣肺活量和第一秒用力呼氣容積均在術後第一天降至最低，到術後六週可恢復爲術前的 86.8% （SD = 12.2）和 87.7%（SD = 19.0）。以 ASES 肩功能分數指標測量肩功能，分數指標爲 0 - 100 分，分數越高表示肩功能越好，在術後第一天平均肩功能分數指標降至最低，而後隨天數增加而回升，到術後六週可恢復爲術前的 94.2%（SD = 11.7）。術後疼痛部位主要在切割傷口上（49.3%），疼痛型態主要爲身體活動時才痛（39.3%），疼痛的性質以抽痛（61.0%）爲主，每日最痛疼痛強度的高峰發生在術後第二天，隨天數的增加而逐漸減緩爲輕度疼痛，每日平均疼痛強度的高峰發生在術後第一天，術後六週內平均疼痛強度爲輕度疼痛。術後一週內七天測量中，有四次的第一秒呼氣容積肺功能與平均疼痛強度呈現負相關（r = -.44 至-.52），術後六週內 6 個測量時間點的肩功能分數指數中，有四次與平均疼痛強度呈現負相關（r = -.43 至-.64），六次均與最痛疼痛強度呈現負相關（r = -.44 至-.72）。胸管放置時間與術後六週內的用力吐氣肺活量呈現負相關（r = -.39 至-.49），總傷口長度與術後六週內的肩功能分數指標呈現負相關（r = -.45 至-.47），總傷口長度與術後六週內的最痛疼痛強度呈現正相關（r = -. 40 至-.52）。接受胸腔鏡協助的胸腔手術的病人僅在術後第一天的最痛疼痛強度顯著低於胸廓切開術組病人的最痛疼痛強度。此研究結果可使護理人員瞭解病患在胸腔手術後生理功能與疼痛經驗的變化，肺功能和肩功能與疼痛的關係，可以在術後恢復期提供病患最適切的護理照護，增進病患對專業護理的滿意度。

英文摘要

The aim of this study were to evaluate the pain response, pulmonary and shoulder functions in patients receiving thoracic surgery, and the relationship between them. This study is a prospective longitudenal design and using convenient sampling 30 patients received thoracic surgery were collected. Each patient received preoperative day and postoperative days 1 - 7, and second, sixth weeks repeat testing. Postoperative pain were measured by 0 - 10 numeric rating scale and Pulmonary function were measured by spirometer and Shoulder function were measured by the American Shoulder and Elbow Surgeons Standardized Shoulder Assessment Form (ASES). The findings of the study : there were significance change of pulmonary function, shoulder function and postoperative pain in the six weeks of postthoracic surgery. The forced vital capacity (FVC) and forced expiratory volume at one second (FEV1) were worse in the first day of post operation, and recovered to 86.8% (SD = 12.2) and 87.7% (SD = 19.0) of the preoperative baseline volume after six weeks. The shoulder function were worse in the first day of post operation, and recovered to 94.2% (SD = 11.7) of the preoperative baseline score after six weeks. The common pain experience was throbbing (61.0%) on incision wound, and the highest pain intensity occurred in postoperative day 2. There were significant correlation (r = -.44 to -.52) between FEV1 and average pain in 4 times of postoperative exam. There were significant correlation between shoulder score index and average pain (r = -.43 to -.64) in 4 times of postoperative exam and between shoulder score index and most pain (r = -.44 to -.72) in 6 times of postoperative exam. There were also significant correlation between the time of chest drains and FVC (r = -.39 to -.49) and between total incision length and shoulder score index (r = -.45 to -.47) and between total incision length and most pain (r = -.40 to -.52) in 6 weeks of postoperative period. The study result can help us to understand the relationship between physical function and pain experience after thoracic surgery for the clinical application.