

中文摘要

本研究目的在探討提供改良式擴胸運動之復健方案，對腹部手術病患手術後肺部復健之成效。採實驗型之研究設計，於北部某醫學中心經醫院人體試驗倫理委員會審查通過後，於一般外科病房行腹部手術病患為對象，符合收案條件並經說明同意參與研究者方才收案。以隨機分派，實驗組 30 名及控制組 30 名。實驗組病患於入院手術前，進行改良式擴胸運動及深呼吸訓練器之指導，控制組則依常規進行 深呼吸訓練器之指導。分別於病患入院後手術前、手術後第二天至手術後第六天測量肺功能。研究結果顯示：實驗組無人發生肺炎，控制組有 4 位發生肺炎 (13.3%)；實驗組病患肺功能進步情況與控制組相比，在肺活量(% VC pred.)、用力肺活量(% FVC pred.)及用力呼氣第一秒量(% FEV1 pred.)上，在術後第二天起優於控制組，達統計上的顯著意義；實驗組在術後第二天的 FVC 與 FEV1 的降低(44.6% vs. 48.9%)，即低於文獻的陳述(55%)之危險閾值，有效降低肺炎之發生風險。改良式擴胸運動之介入措施，可顯著改善腹部手術病患術後肺功能之恢復，值得推廣於一般外科病房的術後肺部復健。

英文摘要

The purpose of this study was to explore the effect modified lung expansion exercise (MLE) training on pulmonary function and the level of pain in patients after laparotomy. It was an experimental design and randomly assigned subjects into experimental and control group with thirty patients in each groups. Patients in the experimental group received a class on MLE and incentive spirometry before surgery. They practiced MLE and perform incentive spirometry after laparotomy. The control group only performed incentive spirometry after the surgery. Subjects received measurement of pulmonary function test before and after the surgery, from the second day to the 6th day. There were 4 pneumonia developed in control group (4/30), and none in experimental group. The subjects in the experimental group had significant greater improvement in their vital capacities, force vital capacity (FVC) and forced expiratory volume in 1 second (FEV1) than the ones in control group. The reduced values of FVC and FEV1 of the experimental group on the second day (44.6%, 48.9% respectively) are much less than 55% which is reported as the threshold of developing pneumonia in the literature. In conclusion MCE was effective in improving pulmonary function recovery in-patient after abdominal laparotomy. It provides an alternative of pulmonary rehabilitatve regimen for patients undergoing abdominal surgery.