

심폐재활

게시일시 및 장소 : 10 월 18 일(금) 08:30-12:20 Room G(3F)

질의응답 일시 및 장소 : 10 월 18 일(금) 10:00-10:45 Room G(3F)

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The Effect of Preoperative Rehabilitation on Postoperative Complication after Surgery: Pilot Study

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Objective

To examine the effect of preoperative rehabilitation on postoperative complication after surgery

Method

A retrospective cohort study was conducted. Preoperative rehabilitation include pulmonary rehabilitation (breathing re-training, secretion removal training, inspiratory muscle exercise, chest expansion exercise, accessory muscle exercise) and aerobic exercise (treadmill, bicycle ergometer, upper limb ergometer). From January to June 2019, forty-five patients who underwent cancer surgery (colorectal cancer; 14 patients, breast cancer; 8 patients, thyroid cancer; 5 patients, gastric cancer; 1 patients and hepatic cancer; 1 patients) and spine surgery with 16 patients, conducted preoperative rehabilitation. Control group included forty-five patients who underwent surgery but did not conduct preoperative rehabilitation, matched with factors of age, gender and diagnosis. Outcome were postoperative complications, whether they had been treated in the intensive care unit (ICU) and numeric rating scale (NRS) at discharge in patients with spine surgery. In subgroup analysis depend on diagnosis, outcome was length of hospital day after surgery. Comparisons between preoperative rehabilitation group and control group was conducted by Chi-squared test, Fisher's exact test and Mann-whitney U test.

Results

Of 90 patients, 14 had postoperative complications (preoperative rehab group; 4 patients, no rehab group; 10 patients) and 17 patients had ICU treatment (preoperative rehab group; 8 patients, no rehab group; 9 patients). No rehab group reported more postoperative complications and ICU treatment than preoperative rehab group, but it was not statistically significant ($P = .14$, $P = .78$, respectively). Length of stay in ICU was not significantly different between preoperative rehab group and no rehab group (2.87 ± 1.35 days, $2.55 \pm .72$ days, respectively). NRS at discharge in patients with spine surgery was not significantly different between preoperative rehab group and no rehab group

(1.33 ± 1.65 , $.93 \pm 1.38$, respectively). In subgroup analysis, length of stay after surgery were not significantly different between preoperative rehab group and no rehab group in colorectal cancer, breast cancer, thyroid cancer and spine surgery ($P = .11$, $P = .83$, $P = .22$, $P = .08$, respectively).

Conclusion

Preoperative rehabilitation group reported less postoperative complications and received less ICU treatment than no rehab group, but it was not significantly statistical. Because of the limited number of patients, further research is needed.