

Effects of Kinesio® Tape in patients undergoing thoracotomy for lung cancer.

Dott.ssa Grande A.M., FT Gasperini L., FT Terzaghi L., Dott. Castiglioni M.

Reparto di Chirurgia Toracica, Ospedale di Circolo, Varese.

ABSTRACT

BACKGROUND: Lung cancer is one of the most common diseases in industrialized countries. Radical surgery through thoracotomy is the most effective treatment; after surgery all patients complain severe pain that respiratory physiotherapy and analgesic drug therapy can't completely relieve.

METHODS: Randomized controlled trial.

-Inclusion criteria: age over 18 years; lung cancer surgery: pulmonary resection with thoracotomy.

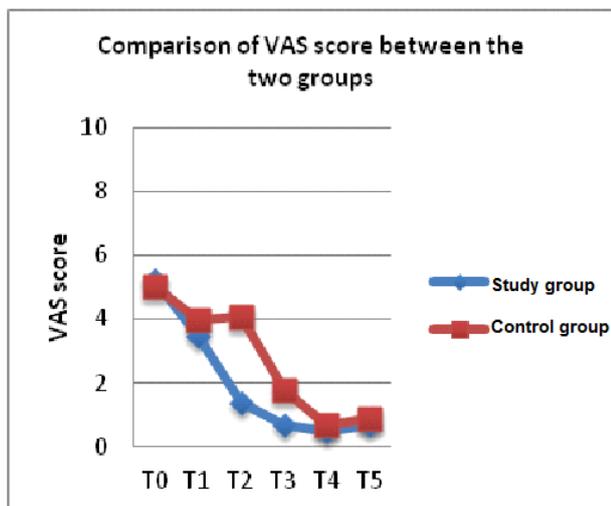
-Exclusion criteria: age under 18 years; stay in Intensive Care after surgery; uncooperative patients; recent chest trauma (last six months), patients with allergies to the analgesic drugs planned in the standard protocol.

Twenty participants were divided into two groups (Control group and Study group) of ten patients each. Both groups were treated with traditional respiratory physiotherapy and standard analgesic drug therapy, only the patients of Study group received in addition the application of Kinesio® Taping.

Kinesio® tape was applied in first, second, sixth, ninth and tenth post-operative day. In these days, and in twentieth post-operative day, was also administered Visual Analogic Scale (VAS) to all participants.

Outcomes: VAS score, days of post-operative hospitalization, the amount of analgesic drugs administered in addition to the ones provided by the standard protocol.

RESULTS:



The difference in VAS scores between the two groups is statistically significant only between second and sixth post-operative day (Wilcoxon- Mann-Whitney Test).

VAS score 0 (no pain) was reached much earlier in Study group patients.

No long-term effect was observed: VAS scores in twentieth post-operative day are similar between the two groups.

Study group patients took less additional analgesic drugs than Control group patients: a total of 9 drugs was assumed by Study group, while a total of 23 drugs was assumed by Control group. The difference is not statistically significant according to Chi-Square Test.

The amount of days of post-operative hospital stay is considerably lower in Study group (average of 11,2 days for Study group; average of 14,3 days for Control group). The difference is statistically significant according to Fisher Exact Test.

Other two significant effects of Kinesio® Tape were observed: the reduction of days with chest drainage (average of 7,5 days for Study group; average of 9,5 days for Control group) and the increase of inspiratory volume in all patients after the application of Kinesio® Tape (test with Coach: all patients increased the score with an average of 200 ml extra of inspiratory volume).

CONCLUSIONS: The results suggest that the use of Kinesio® Taping method in patients undergoing thoracotomy for lung cancer is effective in the post-operative period, especially in the reduction of hospital stay. This is the first study concerning the use of Kinesio® Taping in this area and it has been conducted on a small group of patients, these are the reasons why the study is about to be continued by our equipe.