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EFFECT OF ACTIVE ABDOMINAL CONTRACTIONS TO IMPROVE GUT MOTILITY IN POST CABG PATIENTS - A RANDOMIZED CONTROLLED STUDY

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Abstract

Background: Cardiopulmonary diseases are the leading cause of death worldwide. With the advancement in cardiac surgery coronary artery bypass grafting (CABG) is performed to improve coronary artery blood flow. Apart from its benefits, it causes multiple complications. Paralytic ileus is one of them. Lack of proper management causes high rate of morbidity and mortality in them.

Objective: To evaluate the effects of active abdominal contractions in post coronary artery bypass surgery (CAB) patients to improve gut motility and to minimize respiratory crisis followed by the paralytic ileus post general anesthesia. But control group treated with standard physiotherapy protocol only.

Methods: A total of 56 coronary artery bypass surgery (CAB) patients having decreased gut motility after twenty four hours of surgery were selected and randomly divided into a control group and a treatment group according to different treatment methods (n=28). The control group was given general physical therapy protocol, out of bed, chest physiotherapy, breathing exercises and static walk on day one post operative, rest of protocol as per cardiac surgery intensive care unit. The treatment group was treated with active abdominal contractions in addition to other physical therapy protocol treatment for control group. For all patients, blood gas analysis, Borges dyspnea scale, gut motility by auscultation and hemodynamics were measured respectively before and after treatment.

Results: A total of 56 patients were selected post CABG surgery from the admitted patients with the complaint of absent or sluggish bowel sound on day first post-operative. On auscultation scale, the mean of bowel sounds on first post-op day was 4.00 ± 0 for both experimental and control group. The mean of bowel sounds recorded on fourth post-op day was 1.00 for experimental group and 1.43 ± .504 for control group respectively. T-test indicated p<0.05 indicating highly significant improvement in gut motility. The mean score of constipation scale for both experimental and control group on first post op day was 6.93 ± 0.378 & 7.00 ± 0 and on fourth post-op day was 4.14 ± 0.705 & 5.79 ± 0.686 respectively. When t test was applied, p<0.05 making the results significant. This study has been approved by the ethics committee of our hospital, and written consent was obtained from all patients.

Conclusion: The findings of current study suggest that in post CABG patients, active abdominal contractions are efficacious to improve gut motility. Improvement in gut motility comes early in experimental group as compared to control group.

Key Words: CABG, Intestinal pseudo-obstruction, Post CABG Complications, Active Abdominal Contractions.

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