Physiotherapy of Operative of Myocardial Revascularization Post-Surgery

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revascularization. And we excluded the work that was not related to revascularization. Of the 153 remaining studies, they were discarded for methodological reasons and lack of important information.
20 studies were included for qualitative synthesis, in which they presented all the inclusion criteria, with relevant and extremely important information for the research. 10 articles were of Portuguese language and 10 of foreign language (Figure 1).

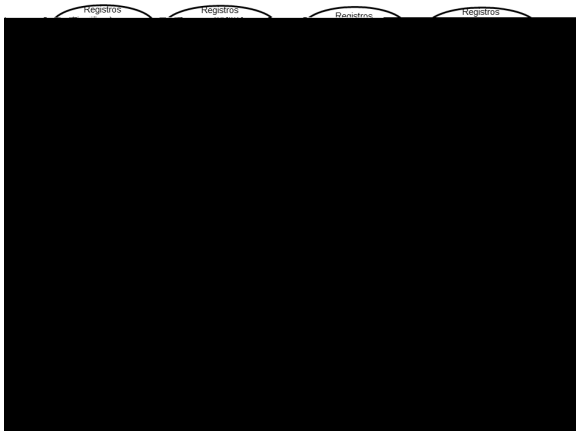

Figure 1: Information with the phases of a systematic review.

Patients undergoing coronary artery bypass surgery may be predisposed to acquire complications in the cardiovascular and respiratory systems, as a consequence of secondary dysfunctions such as induction of anesthesia, thus triggering ventilation and perfusion disorders promoting a closure of the airways [4].

experiences of heart disease and surgery change the way you live, work, and understand the process that is happening to each patient. According to the interviews, people who went through the health-disease process report that they manipulate the knowledge, standards, values and beliefs that guide their practices [5].

It was observed that one of the common alterations in this procedure is atelectasis, since they are diagnosed through radiological exams and are linked to aggravation of gas exchange and decrease of pulmonary volumes, resulting in restriction of functional capacity and pulmonary complacency [4].

In order to promote a balance and improvement in the clinical picture of each individual, physiotherapeutic intervention was used in cardiac rehabilitation programs involving a multidisciplinary team that meets the needs required [6].

Post-operative physiotherapy aims to treat the pulmonary complications, performed through physiotherapeutic maneuvers and non-invasive respiratory device, aiming to improve respiratory mechanics, pulmonary expansion and bronchial hygiene [7].

According to Araujo [8], cardiac rehabilitation reduces mortality rates, myocardial revascularization and improves the quality of life, biochemical and increase in physical evolution in functional capacity and gain in hemodynamic, physiological and autonomic parameters.

Cardiac rehabilitation programs in post-myocardial revascularization patients include muscle training, transcutaneous electrical nerve stimulation - TENS, of PEEP, the role of electro analgesia in respiratory function, the use of EPAP by face mask, CPAP, deep breathing exercises and spirometry. Treatment varies with a frequency of two to three times a day, with a series of ten repetitions of breathing exercises.

According to Matheus [5] respiratory muscle training was in recovering tidal volume and vital capacity in the threshold training group, which was done in 47 patients and was divided into two groups: the study group with 23 patients and the control group with 24 Patients, for Ferreira [9] the results are similar with the use of the threshold, but there was no in PEmax and PImax in the postoperative period, only improvement was observed in the preoperative period.

In the Barros study [10] performed with 38 patients with respiratory muscle training treatment, it was observed that there were alterations in Pimax, PEmax, VC and PEF in subjects submitted to immediate postoperative surgery and it was that in the group submitted to revascularization without To perform the muscular training showed a behavior, already those submitted to the muscular training was noticed that a reestablishment of the ventilation functionality occurred at the moment of the hospital discharge, returning its parameters to the values initially observed, before the surgery.

In a study of 149 patients, the physical exercise performed in the cardiovascular physical therapy protocol was promoting changes in heart rate, without causing any clinical complications [11].

A survey conducted by Aikawa [12], with 86 patients, developed a protocol with combination of aerobic exercises and resistance exercises. weight of the dumbbells and ankles were determined according to the of each patient. improvement of the functional capacity was the main result that the research obtained.

In the protocol that Botega [13] elaborated, with 14 patients, consisted of a group of low-impact exercises for upper and lower extremity and walking exercise, performed in the pre- and postoperative period. Heart rate, systolic blood pressure, diastolic blood pressure, mean arterial pressure, double product, and EPI score were assessed before and training. result was satisfactory, but lower than expected, with only an increase in heart rate in the individual analysis.

In the treatment with EENT (Transcutaneous Electric Nerve Stimulation), it was in the management of postoperative pain in cardiac surgery, avoiding the excessive use of analgesic as well as in the improvement of respiratory muscle strength and especially in PEmax [14]. Considering the results of the studies analyzed, we observed the t of certain procedures used in the postoperative period, since pain control becomes essential for the patient, since the pain stimuli pre-dispose to a greater of the postoperative complications.

For Luchesa, [15] although electro analgesia helped in the pain it did not react in the improvement of peak expiratory forced vital capacity and forced expiratory volume in the second of patients undergoing cardiac.

According to Graetz [16], the respiratory complications present in the postoperative period of cardiac surgery are frequent, with emphasis on atelectasis, pneumonias, hypoxemia and pleural

20. Cavalli F, Nohama P (2013) New underwater EPAP device in the postoperative period of myocardial revascularization surgery. Rev Fisioter Mov 26: 37-45.

21. Vila VSC, Rossi LA, Costa MCS (2008) Heart disease experience of adults undergoing coronary artery bypass surgery. Rev