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A STUDY TO ASSESS THE EFFECTIVENESS OF COLD APPLICATION ON PAIN DURING CHEST TUBE REMOVAL AMONG PATIENTS FOLLOWING CABG AT SELECTED HOSPITAL, COIMBATORE

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ABSTRACT

The present study evaluates with cardiovascular diseases. The problem of cardiovascular illnesses is growing worldwide. In 201717.9 million people died per year due to cardio vascular diseases in.India becoming the capital of cardiovascular diseases. Cardiac surgical operation is on the rise, congenital deficiencies or generalized degradation of cardiological characteristic, over time cardiovascular illnesses are growing dramatically, substantiating the need for continued growth of cardiovascular surgical operation. Pain at some point of chest tube removal is been poorly managed and has been described as one of the worst intensive care experience for the patients. Control of pain is a excessive precedence for nursing care and the usage of simple interventions like icepack application during chest tube removal can reduce the intensity of the ache and make the painful method much less distressing for the patients. **Objective:** to assess the effectiveness of cold application on pain at some point of chest tube removal among patients following CABG. **Design:** a qualitative approach using quasi experimental pre-test post-test control group design was used. **Participants:** 60 patients receiving cold application during chest tube removal. Samples were selected using non-probability convenient sampling in Sree Abirami Hospital at Coimbatore. **Intervention**: cold application for 15-20 minutes to reduce levels of pain throughout chest tube removal. **Tools:** Standardized Visual analogue pain rating scale was used to assess the levels of pain throughout chest tube removal. **Results:** Descriptive and inferential statistical techniques were to analyze collected data. Using paired't' effect of cold application on pain throughout chest tube removal was assessed.(t= 10.5 respectively<0.05). **Conclusion:** Cold application was effective in reducing the stages of pain between patients following CABG during chest tube removal.

KEYWORDS

Congenital defects, Cardiovascular disease, Chest tube removal, Cold application and Pain.

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INTRODUCTION

Cardiovascular diseases are the leading cause of death globally. In India 50,000 - 60,000 CABG surgeries were performed every year, between the years 2000 and 2010). Cold application on pain during chest tube removal as part of the patient's following CABG, to reduce pain during the chest

tube removal procedure. It is an simple and inexpensive therapy. Many reviews suggest that the use of non- pharmacological measures along with pharmacological treatment is considered as effective for pain management.

Cold application appears to be a cheaper and easily available therapy to reduce pain. Hence the researcher wanted to evaluate the effectiveness of cold application on pain through chest tube removal among patients following CABG.

Problem statement

A study to assess the effectiveness of cold application on pain during chest tube removal among patients following CABG at selected hospital, Coimbatore.

Objectives of the study

To assess the levels of pain before chest tube removal among the patients following CABG in the interventional group and the control group.

To assess the effectiveness of cold application on pain through chest tube removal among the patients following CABG in the interventional group.

To compare the levels of pain throughout chest tube removal among patients following CABG in the interventional and the control groups.

To determine the association between the levels of pain throughout chest tube removal among patients following CABG and their selected demographic variables and clinical variables.

Assumption

The post operative clients may experience excruciating pain while chest tube removal.

Cold application will effectively reduce the pain while chest tube removal among patients following CABG.

MATERIAL AND METHODS

A quantitative approach was used. A quasi experimental pre-test post-test control group design was used to assess the effectiveness of cod application among patients following CABG. The study was conducted at Sree Abirami Hospital (SAH) Coimbatore. 60 samples were selected for the study, among them 30 were allotted for interventional group and the remaining 30 for control group who fulfils the inclusion criteria. The sample was selected for this study by adopting Non probability convenient sampling technique. In the interventional group received 15-20 minutes of cold application during chest tube removal, the samples of the control group were treated similar to the experimental group with exception of the cold application. All the sample received the routine care of study settings. Then the post test was done for both the groups. In the post test, the levels of pain was assessed immediately within 2-5 minutes after removal of chest tube using Visual analogue pain rating scale.

Tools used for the study

This standardized visual analogue pain rating scale was administered through structured interview schedule to assess the levels of pain while chest tube removal among patients following CABG. It includes demographic variables age, gender, educational status, monthly income, marital status, habits of smoking, habits of alcoholism, family history of heart disorders, diabetes mellitus, clinical profile of the patient following CABG pain tolerance, amount of drain, removal of chest tube, co morbid illness like Chronic obstructive pulmonary disease, Chronic renal failure, Visual analogue pain rating scale, assessing subjective experiences of pain while chest tube removal has been graded on 0-10. The total score is 10. Cold application was applied 15-20 minutes before chest tube removal. Post-test levels of pain perception was assessed by using visual analogue pain rating scale.

RESULTS AND CONCLUSION

Table No.1 shows the levels of pain among CABG patients in the interventional group before chest tube removal. The findings shows that half of the subjects 50% reported moderate pain and 8(26.6%) and 7(10%) of them had severe pain and mild pain respectively. Further, none of them were without pain.

Table No.2 reveals that overall score on pain while chest tube removal among samples in interventional group. The mean score of 5.06 ±6.4 before chest tube removal was higher than the mean score of 2.36±2.45 during chest tube removal. The mean difference of pre-test and post test score was 2.7. The

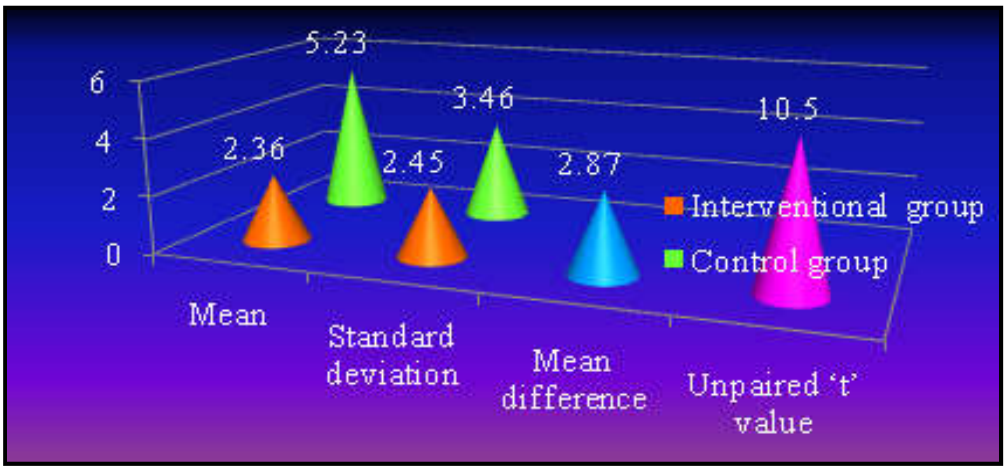
paired‘t’ test value was 10.9, which is significantly higher than the table value 2.05 at $p<0.05$. Thus the result showed that cold application was effective during chest tube removal.

Table No.1: Data on assessment of level s of pain before chest tube removal among patients following CABG N = 30

S.No	Levels of Pain	Pre-test score	
		N	%
1	No pain	0	0%
2	Mild pain	7	23.3%
3	Moderate pain	15	50%
4	Severe pain	8	26.6%

Table No.2: Data on effectiveness of Cold application on pain while chest tube removal among patients following CABG in the interventional group N=30

S.No	Test	Mean	Standard deviation	Mean difference	Paired “t” value
1	Pre-test	5.06	6.4	2.7	10.9*
	Post-test	2.36	2.45		



CONCLUSION

The main conclusion drawn from this present study was that most of the clients following CABG had significant levels of pain. After cold application it was found that there was a significant levels of reduction in pain. Participants found themselves comfortable and also expressed high level of satisfaction towards Cold application. It is concluded that, Cold application is an effective, simple, easy and in expensive method to reduce pain among patients following CABG.

RECOMMENDATION

Educate about the importance of dry cold application and its effect on minimizing the pain level should be conducted for nursing staff and students.

Cold application has to be part of the routine care of patients following CABG during chest tube removal.

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CONFLICT OF INTEREST

We declare that we have no conflict of interest.

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