



A COMPARATIVE STUDY TO ASSESS THE EFFECTIVENESS OF MAGNESIUM SULPHATE DRESSING AND COLD APPLICATION ON PITTING EDEMA AMONG HOSPITALIZED PATIENT IN SELECTED HOSPITAL OF GUJARAT

Divya Patel

Student Of Manikaka Topawala Institute Of Nursing, Charotar University Of Science And Technology

ABSTRACT **BACKGROUND OF THE STUDY:** Edema is a soft tissues swelling due to fluid accumulation.¹ Edema is caused by the fluid accumulation in the intracellular, it usually occur in the ankle leg and whole body.² Pitting edema is observable swelling of body tissues due to fluid accumulation that can also be confirmed by applying pressure to the swollen area(such as depressing the pores and skin with a finger.). If the pressing reasons an indentation that persistent for some times after the release of the pressure, the edema is referred to as pitting edema.³

OBJECTIVES: 1) To assess the effectiveness of magnesium sulphate dressing on pitting edema among selected hospitalized patient. 2) To assess the effectiveness of cold application on pitting edema among hospitalized patient. 3) To compared the results of magnesium sulfate dressing and cold application on pitting edema among selected hospitalized patients. 4) To associate the pitting edema with selected demographic variable

METHODOLOGY: A quasi experimental study was carried out by electing 60 hospitalized patients through non probability convenience sampling technique. Demographic data was collected by questionnaire as well as pitting edema was assess by pitting edema grading scale.

RESULTS: In order to compare the pitting edema score of cold application and magnesium sulphate application among patients who are hospitalized unpaired T test was used. The mean difference in pitting edema score of magnesium sulphate application is higher than the mean difference in pitting edema score of cold application (1.63>1)). Unpaired t calculated value is 6.23. *p<0.001 is significant at 0.001% level The above results indicate that magnesium sulphate application is more effective than the cold application on pitting edema. Hence H₀ was rejected.

CONCLUSION: The study concludes that all the patients hospitalized are having pitting edema. Cold application was less effective than the magnesium sulphate application on pitting edema among hospitalized patients for better comfort.

KEYWORDS : Pitting Edema, Cold Application, Magnesium Sulphate Application, Pitting Edema Grading Scale.

INTRODUCTION:

Edema is a soft tissues swelling due to fluid accumulation¹ Edema is caused by the fluid accumulation in the intracellular, it usually occur in the ankle leg and whole body. Pitting edema is observable swelling of body tissues due to fluid accumulation that can also be confirmed by applying pressure to the swollen area(such as depressing the pores and skin with a finger.). If the pressing reasons an indentation that persistent for some times after the release of the pressure, the edema is referred to as pitting edema. Edema occurs when extra fluid stays inside the body's tissues. There is generally an underlying disease or condition. Symptoms rely on the cause, and they typically increase gradually. Medications are reachable to treat edema .Edema can produced in generally older adults , pregnant women, kidney sickness patients, liver disease, anemia.⁴ Medications also can motive pitting edema. The most common nearby prerequisites that cause edema are varicose veins and thrombophlebitis (inflammation of the veins) of the deep veins of the legs. These prerequisites can reason inadequate pumping of the blood through the veins (venous insufficiency). The ensuing elevated back-pressure in the veins forces fluid stay in the extremities (especially the ankles and feet). The excess fluid then leaks into the interstitial tissue spaces, inflicting edema.⁵

Edema can result in the overlying skin turning into stretched, growing infections or ulcerating. Also, diminished blood circulation can lead to blood clots in the deep veins of the body, also recognized as deep vein thrombosis.⁶

METHODOLOGY:

The study utilized an Quantitative research approach with quasi-experimental pre test, post test design. The population selected hospitalized patients who had pitting edema selected hospitals of Gujarat . samples are identified through power analysis method and 60 patients was selected using non probability sampling techniques and randomly assign in two groups. The independent ant variable was cold application and magnesium sulphate application and dependent variable was reduction of pitting edema level. A pitting edema grading scale was used by the investigator for data collection. Pilot study was conducted to assess feasibility of the tool. Data analysis was done using inferential and descriptive statistics.

RESULTS:

There will significant relationship between cold application and magnesium sulphate application on pitting edema level score at 0.05 level of significance.

In order to compare the pitting edema score of cold application and

magnesium sulphate application among patients who are hospitalized unpaired T test was used. The mean difference in pitting edema score of magnesium sulphate application is higher than the mean difference in pitting edema score of cold application (1.63>1)). Unpaired t calculated value is 6.23. *p<0.001 is significant at 0.001% level The above results indicate that magnesium sulphate application is more effective than the cold application on pitting edema. Hence H₁ was rejected.

CONCLUSION:

The study concludes that all the patients hospitalized are having pitting edema. Cold application was less effective than the magnesium sulphate application on pitting edema among hospitalized patients for better comfort.

ETHICAL CLEARENCE

The study was approved by the research committee, IEC – 10/05/2019-ARIP/IEC/19/10 and a formal written permission was gathered from the authority of old age home.

STATEMENT OF INFORMED CONSENT

Informed consent was obtained from the participants

REFERENCES:

1. Brruner and suddharth's "Medical Surgical Nursing", VOLUME -2, 13TH Edition, Published By wolter and kliwers -2014, new delhi, pageno:1103.
2. Joyce M. Black Jane Hokanshon hawks "Medical surgical Nursing", published by ELSEVIER, 8th Edition, 2009, page no:137.
3. Chintamani, lewis's "Medical Surgical Nursing", published by ELSEVIER, 1ST Edition 2011, page no:372.
4. Medically reviewed by Suzanne Falck, MDon August 30, 2017, by TaylorNorris available from: <https://www.healthline.com/health/pitting-edema>
5. Medicinehealth, Ruchi Mathur, MD, FRCP(C) Medical Editor: Melissa Conrad Stöppler, MD, Chief (online) available from: <https://www.medicinenet.com/edema/article.htm>.
6. Medicine health :By Christian Nordqvist Reviewed by Graham Rogers, MD ,21 august 2017 (online) available from: <https://www.medicalnewstoday.com/articles/159111.php>