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A Comparative Study To Assess The Effectiveness Of Hot Compression Versus Cold Compression In Terms Of Reducing Phlebitis Due To Intravenous Infiltration Among Patients In Selected Hospital Of Ludhiana, Punjab

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Abstract

Researcher aimed to compare the effectiveness of hot compression versus cold compression in reducing phlebitis among adults receiving intravenous therapy in Selected civil Hospital of Ludhiana, Punjab. A quantitative pre-experimental one-group pre-test post-test repeated measures design was adopted among 60 adults with IV infiltration. Phlebitis was assessed using a standardized phlebitis grading scale and pain was measured using the numerical pain rating scale. Findings revealed a significant reduction in phlebitis and pain scores in both groups, with cold compression demonstrating superior effectiveness. The study concludes that cold compression is more effective in reducing IV-induced phlebitis and can be implemented as a simple, affordable nursing intervention.

Keywords : Phlebitis, Hot Compression, Cold Compression, Intravenous Infiltration, Nursing Intervention

Introduction

Phlebitis is a common complication of intravenous therapy, resulting in pain, discomfort, edema, erythema, and prolonged hospitalization. Hot and cold compressions are widely used non-pharmacological nursing interventions to alleviate inflammation and swelling. This study assesses the comparative effectiveness of hot versus cold compression in reducing IV infiltration-related phlebitis among hospitalized adults.

Methodology

A quantitative pre-experimental design with repeated measures was used. The study was conducted in medical and surgical wards of Civil Hospital, Ludhiana, Punjab. A total of 60 adults aged 20–50 years who developed phlebitis due to IV infiltration were selected through purposive sampling. Phlebitis grading scale and numerical pain rating scale were used for assessment. Hot and cold compressions were applied for 15 minutes twice daily for three days.

Results

The major findings of the study are summarized below.

Group	Pre-test Mean	Post-test Mean
Hot Compression	2.1	0.86
Cold Compression	1.9	0.30

Figures can be inserted in the final formatted version as required.

Discussion

The findings indicate that both hot and cold compressions significantly reduce phlebitis and related pain; however, cold compression showed greater improvement. These results align with earlier studies supporting the effectiveness of cold therapy in reducing inflammation and pain associated with IV infiltration.

Conclusion

Cold compression is more effective than hot compression in reducing phlebitis and pain among adults receiving IV therapy. Nurses can implement cold compression as a simple, cost-effective intervention to reduce IV complications and improve patient comfort.

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