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PERIPHERAL INFUSION RELATED THROMBOPHLEBITIS- A HEALTH PROBLEM

Anaesthesiology

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ABSTRACT

Objectives : Peripheral infusion related thrombophlebitis has documented high incidence in hospitalised patients, making it a common complication. Heparin reduces the superficial thrombophlebitis. In this prospective randomised study, our aim was to evaluate the efficacy of Heparin Sodium Topical Solution. **Methods :** The patients were divided into two groups. Group I included 20 patients who did not receive heparin and Group II who received topical heparin sodium. The efficacy of the solution was assessed on the basis of phlebitis scale for 48 hours. **Results :** There was significantly lesser score in Group I (receiving topical heparin) in all time periods **Conclusion :** Our study showed relatively less frequent occurrence and milder severity of catheter related phlebitis when topical heparin is applied on insertion site of cannula. **Aims And Objectives:** To Evaluate the Efficacy of Heparin Sodium Topical Solution in Prevention of Intra Venous Cannula Related Thrombophlebitis

KEYWORDS

Topical Heparin, Thrombophlebitis , Intra Venous Cannulation.

INTRODUCTION:

Peripheral infusion related Thrombophlebitis- A health problem: Phlebitis is inflammation of the interior wall of the vein, the tunica intima that affects upto70% of all patients receiving intravenous therapy.[1]

Basics factor leading to phlebitis can broadly divided into [1,2]

- Mechanical: Catheter size, material, length, insertion site, immobilization and the dwell time.
- Chemical: Infusion of the medication or fluids with variable pH or osmolality.
- Bacterial: Contaminated IV solution, tubing, catheter, insertion site and lack of asepsis.

Study Objective &Design

This Study was aimed at evaluating that Heparin Sodium (1000 IU ml) Topical Solution is effective in preventing intravenous cannula related thrombophlebitis.[3] Randomised, open label, comparative, parallel group clinical study.

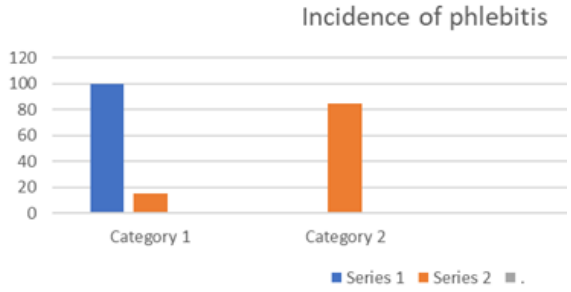
METHOD

40 ASA grade I adult patients admitted for routine surgery were included in the study. IV cannula of some gauge and brand with IV set of same type and brand were used. They were randomly allocated in one of the two group of 20 each. Group I =did not receive application of any topical solution /gel, group II =heparin solution topical QPS (1000it/ml) was applied around intravenous cannula insertion site immediately after cannulation and thrice daily thereafter for a period of 48hrs. The efficacy was assessed on the basis of phlebitis scale.

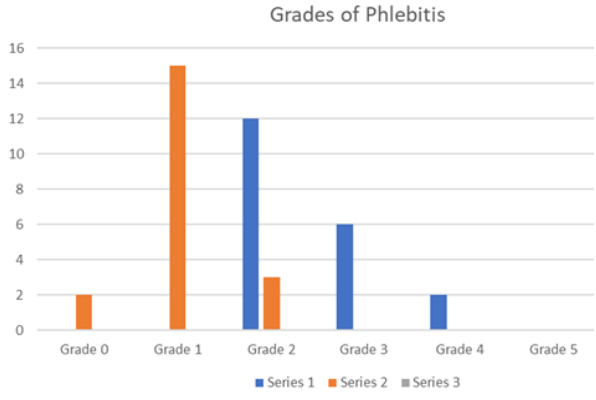
Both the groups were assessed on visual infusion Phlebitis (VIP) scale[5] for 48hrs.

RESULTS

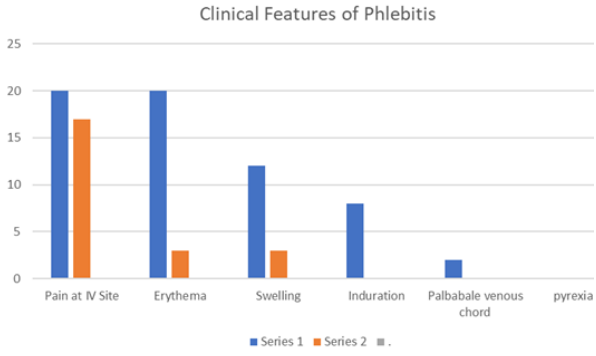
In Group 1, 12 patients had early signs, 6 patients had medium stage (pain, induration, erythema) of phlebitis. While, in Group II, 15 patients had first sign (mild pain, redness), 3 patients had early signs and 2 patients had no sign of phlebitis.



Proportion of patients with phlebitis



Clinical Features of phlebitis



CONCLUSION

Our study showed relatively less frequent occurrence and milder severity of catheder related phlebitis when topical QPS of Heparin is applied on insertion site of cannula. Since we had a small population further large cohort Heparin Sodium (1000 IU/ml) Topical Solution is effective in preventing intravenous cannula related thrombophlebitis

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