

# THE EFFECT OF TOPICAL NITROGLYCERIN OINTMENT ON MAMMOPLASTY SKIN FLAPS VIABILITY: A PROSPECTIVE RANDOMIZED COMPARATIVE STUDY

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## INTRODUCTION

Vascular compromise of the nipple areolar complex (NAC) is a dreaded complication of reduction mammoplasty that can lead to significant loss of nipple and/or areolar tissue. Different interventions have been used to ameliorate venous congestion and improve survival of NAC and mammoplasty skin flaps, in this study, the effect of topical glycerin tri-nitrate ointment was studied; being a readily available and relatively inexpensive topical treatment compared to other interventions.

## AIM OF THE WORK

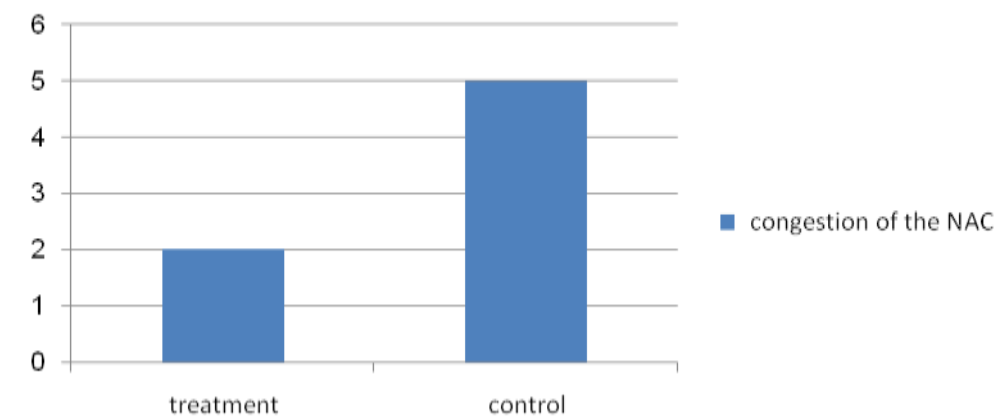
The aim of the study was to assess the effect of application of topical glycerin tri-nitrate ointment on the survival of reduction mammoplasty skin flaps and nipple areola complex and to report any possible side effects of its use.

## SUBJECTS AND METHODS

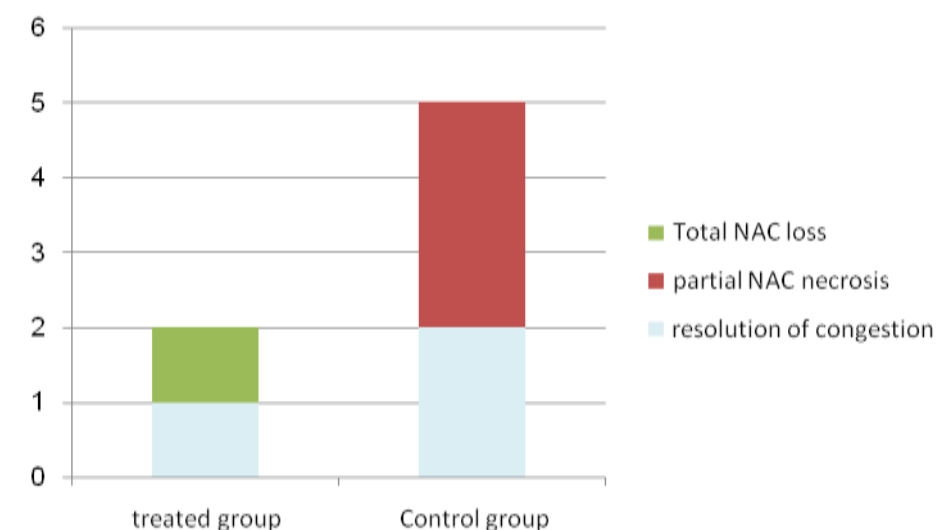
This was a randomized comparative study where in each of the study subjects one breast was randomly allocated to the treatment group and the other was left as a control, by the end of the follow up period the rate of congestion and necrosis was compared between both groups.

## RESULTS

### congestion of the NAC



**Figure 1:** Comparison of the incidence of NAC congestion between the treatment and control group. (n=30)



**Figure 2:** Comparison of the outcome of NAC vascular compromise between the treatment and control groups. (n=30)

The study included 30 reduction mammoplasty cases and reported lower risk of NAC (Nipple Areola Complex) vascular compromise in the group treated by topical glycerin tri-nitrate.

## CONCLUSION

- The incidence of NAC necrosis was lower in the group where GTN was applied in the immediate post-operative period compared to the control group,
- No significant difference in the incidence of wound dehiscence between the treatment and control groups suggesting the limited effect of topical GTN on reducing the risk of this complication.
- Despite previous studies that described headache, hypotension, dizziness and syncope as possible complications of topical GTN application for anal fissure treatment, no significant side effects were reported by the patients included in the study which indicates that once daily application of low dose GTN is relatively well tolerated.