TISSUE ADHESIVE V/S SUTURE WOUND CLOSURE METHODS FOR LOWER LID SKIN APPROACHES USED IN ORIF OF INFRAORBITAL FRACTURES: A PROSPECTIVE BLINDED RANDOMIZED CONTROL STUDY

By

DR ASHA .V.SHET

Dissertation Submitted to the

Shri Dharmasthala Manjunatheshwara University, Dharwad, Karnataka,

In partial fulfilment

of the requirements for the degree of

MASTER OF DENTAL SURGEY

in

ORAL AND MAXILLOFACIAL SURGERY

Under the guidance of

DR ABHIJIT.JOSHI

Department of Oral and Maxillofacial Surgery

SDM College of Dental sciences and Hospital

Dharwad

2020-2023

ABSTRACT

TITLE:

Tissue adhesive v/s suture wound closure methods for lower lid skin approaches used in ORIF of infraorbital fractures : prospective blinded randomized control study

OBJECTIVES:

Tissue adhesives are now routinely used for skin closure in various surgeries.This study was aimed to compare duration ,quality of closure, cosmesis of scar , patient satisfaction and wound healing characteristics of tissue adhesive N-butyl-cyanoacrylate(Histoacryl) with conventional 5.0 polypropylene subcutiular suture in subciliary incisions .

MATERIALS AND METHODS: A double blinded prospective Randomised Controlled Trial was conducted on 57 patients undergoing subcilliary incisions for ORIF of Orbital rim and/ or floor fracture.Patients were randomised into suture group and tissue adhesive group and assessed intraoperatively for closure quality and duration .Post operatively(2^{nd} ,4^{th} week and 3^{rd} month) scar assessment was done using Stony brook scale , Patient-reported outcome measures ,Visual Analogue Scale by 2 blinded observers. Scar depth was assessed using Tissue ultrasound palpation system after 3 months.

RESULTS AND INTERPRETATION

Significant difference was noted in the duration of closure, visual analog scale by blinded observers , patient reported outcome measures and Stony brook scar scale (on first two follow up visits with SBscale) with higher scores for adhesive group and p value of <0.05.No significant difference was found amongst both the groups in terms of depth of scar and Stony brook scar score on third follow up visit of 90 days.Wound complications were more in suture group than tissue adhesive group .

CONCLUSION

The tissue adhesive consumed significantly lesser duration of closure, with excellent patient satisfaction,quality of closure equally comparable cosmesis. This technique is fairly easy ,rapid, has minimal wound complication rates and the result of scar is not operator dependen. Cyanoacrylate tissue adhesive can thus offer an alternative to suture .

KEYWORDS

Tissue adhesive;cyanoacrylate ;polypropylene suture;N-Butyl cyanoacrylate;suture;Histoacryl