

Title: A COMPARATIVE STUDY TO ASSESS EFFICACY AND SAFETY OF SUTURING VERSUS TOPICAL SKIN ADHESIVE (N-BUTYL-2-CYANOACRYLATE) FOR PORTSITE SKIN CLOSURE IN PATIENTS UNDERGOING LAPAROSCOPIC SURGERY IN A TERTIARY CARE HOSPITAL

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INTRODUCTION -Diagnostic and operative laparoscopies are common procedures in gynecology. A variety of skin closure techniques are available such as transcutaneous suture, subcuticular suture, adhesive paper tape, skin staples and skin adhesives. Sutures being a classic method of wound closure have certain disadvantage. Tissue adhesives despite its remarkable advantages over traditional suturing is not been used frequently.

AIM - To compare port site skin closure with triclosan coated polyglactin 910 suture (Trusynth Plus Neo) and tissue adhesive n-butyl -2- cyanoacrylate (Truseal) in laparoscopic surgery



ON THE DAY OF SURGERY



POD 30 +/-7



MATERIALS AND METHODS - A prospective comparative study, conducted in Department of Obstetrics and Gynaecology, Adichunchanagiri Hospital and Research centre, for a duration of 6 months with sample size of 60 (30 in each group)

RESULTS

The mean age was 36.4 years in suture group and 35.5 years in Adhesive group. The mean time for port closure in suture group was 49.13 (± 2.35) seconds and 26.86 (± 1.17) in adhesive group (p value $< .0001$). A two-way repeated measures ANOVA for VAS score revealed a significant difference between the groups ($F(1, 58) = 4.24$, $p = 0.044$) favouring the tissue adhesive group. For Modified Hollander Wound Score, two-way repeated measures ANOVA revealed significant difference within the group over 30 day follow up ($F(3, 174) = 1070$, $p < 0.0001$) and there was no significant difference between the 2 groups ($F(1, 58) = 0$, $p = 1.00$). The ease of application and patient satisfaction scores were comparable. There were no adverse events or surgical site infections in both the groups.

CONCLUSION AND ACKNOWLEDGEMENT –The tissue adhesive group had significantly faster port closure times ($p < 0.0001$) and lower pain levels (VAS scores, $p = 0.044$) compared to the suture group. However, there was no significant difference in wound healing between the two groups. Patient satisfaction and ease of application were similar.