

Comparison between Traditional Intermittent & New Continuous Episiotomy

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Abstract: ***Objective:** A Comparative study of success of traditional intermittent episiotomy & new continuous episiotomy. **Design:** Prospective observational clinical study of 200 cases. **Setting:** Hindustan Aeronautics Ltd Hospital, Bangalore, Karnataka. **Material & method:** The study of 200 deliveries has been conducted at HAL hospital, Bangalore. Women delivering in normally with episiotomy in labour ward were randomized in 2 groups. For one group episiotomy sutured with intermittent layered mattress sutures and for other group episiotomy was sutured continuously with subcuticular sutures. Then both groups were followed for 15 days and were compared in terms of hematoma formation, wound gaping & time taken. **Results:** Incidence of hematoma with continuous episiotomy in the present study was 0%. It was significantly more associated with intermittent episiotomy (P=0.024). In the present study incidence of wound gaping with intermittent episiotomy were found to be 5.90±4.75 whereas with continuous episiotomy it was observed to be 15.73±3.07. Hence incidence of wound gaping with intermittent episiotomy is significantly less than with continuous episiotomy (P<0.001**). **Conclusions:** with the present study, we conclude that whereas the incidence of hematoma formation is more with intermittent episiotomy, the incidence of wound gaping is more with continuous episiotomy. However, the result of hematoma formation is not significant. Also, time taken in continuous episiotomy suturing is significantly less. The choice of episiotomy suturing should be surgeon's choice.*

Keywords: Episiotomy, Continous, Subcuticular, Intermittent, Mattress

1. Introduction

Normal vaginal delivery is the time of maximum pain yet most treasured time in a woman's life whereby she steps into motherhood. It changes not only her life but also life of others who are closely or distantly related to her. In today's era when medical advances are good there are less diseases and awareness is more, the mean birth weight has increased & so does need of giving episiotomy at the time of birth.

This study compares the effectiveness of age old traditional intermittent episiotomy suturing vs more new continuous episiotomy suturing in terms of hematoma formation, wound gaping and time taken to suture episiotomy taken that single surgeon sutures all the episiotomies.

Aims & Objectives

- 1) To Compare success of traditional intermittent layered mattress sutured episiotomy & new continuous with subcuticular sutures episiotomy.
- 2) To evaluate in terms of hematoma formation, wound gaping & time taken.

2. Material & Method

Study design - Randomized prospective open labeled comparative study

The study of 200 deliveries has been conducted at HAL hospital, Bangalore. Women delivering in normally with episiotomy in labour ward were randomized in 2 groups. For one group episiotomy sutured with intermittent layered mattress sutures and for other group episiotomy was sutured continuously with subcuticular sutures. Then both groups were followed for 15 days and were compared in terms of hematoma formation, wound gaping & time taken.

Inclusion Criteria

- 1) Pregnant female delivering vaginally with episiotomy.
- 2) Any gravida.
- 3) Episiotomy to be sutured by the same doctor.

Exclusion Criteria

- 1) Previous H/O episiotomy gaping or hematoma.
- 2) Known case of bleeding disorders.

Patients will be randomly be assigned to group 1 or group2.
Group1- will undergo traditional intermittent layered mattress sutured episiotomy.
Group 2- will undergo continuous with subcuticular sutures episiotomy.

Patients will be followed up till 15 days. Patient will also be followed up for hematoma formation, wound gaping & time taken

Calculation of sample size: *The total sample size for the study is as follows:*

$$N = \frac{(r+1)(Z_{\alpha/2} + Z_{1-\beta})^2 \sigma^2}{r d^2}$$

Where Z_{α} is the normal deviate at α level of significance (Z_{α} is 1.96 for 5% level of significance and 2.58 for 1% level of significance) and $Z_{1-\beta}$ is the normal deviate at $1-\beta$ power with β of type II error (0.84 at 80% power and 1.28 at 90% statistical power). $r=n_1/n_2$ is the ratio of sample size required for two groups, generally it is one for keeping equal sample size for two groups.

Randomization

Randomization for assignment of patients to two groups has be done using online software www.randomization.com.

3. Results

| <i>Clinical variable</i> | <i>Continuous episiotomy</i> | <i>Intermittent episiotomy</i> | <i>P value</i> |
|--------------------------|------------------------------|--------------------------------|----------------|
| Hematoma | | | |
| No | 30(100%) | 24(80%) | P=0.024* |
| Yes | 0(0%) | 6(20%) | |
| Wound gape | | | |
| No | 28(93.3%) | 23(76.7%) | P<0.001** |
| Yes | 2(6.7%) | 7(23.3%) | |

4. Discussion

Jamie habib in 2012 found that continuous stitching of episiotomy causes less pain than interrupted sutures. Also, less suture material is needed for continuous stitching.(1)

In the meta analysis conducted with a total of 16 trials involving 8184 women from 8 countries found that with continuous episiotomy there was less pain upto 10 days post delivery as compared to intermittent suturing. thereby reducing amount of analgesia required.(2)

5. Conclusions

- 1) The incidence of hematoma formation is more with intermittent episiotomy however, it is not significant.
- 2) The incidence of wound gaping is more with continuous episiotomy which is significant.
- 3) Time taken to suture continuous episiotomy is significantly less but it depends on surgeon's skills.
- 4) The choice of episiotomy suturing should be based on comfort & skill of the surgeon's.

References

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