# ONE-LAYER REPAIR OF EPISIOTOMY: APPRAISAL OF A NEW TECHNIQUE

by

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*Introduction*

Many authors, Harris (1970); Donald (1974); Munro Kerr (1964) have described the old three layered technique with complications like bad scars, dyspareunia, pain and even gaping in few of the cases (William's Obstetrics, 1971). Efforts to develop simpler, easier and more convenient technique of episiotomy repair led us to devise the present one-layer method. This paper describes the detailed technique of one-layer method of episiotomy repair with its advantages and complications. We started using this technique since 1965 benefiting 2312 women with satisfactory result. Our method can be used in any type of incision unlike other methods. This makes a contrast to earlier views of episiotomy as condemned by Malina (1975).

*Material and Methods*

One-layer through and through stitch for repair of episiotomy was used in 2312 deliveries selected randomly from 1965 to 1979. Another group of 1156 three-layered episiotomies were also observed as control. The results are satisfactory.

*The Technique*

One-layer technique of repair is quick, easy and requires less materials. Fig. 1 shows the episiotomy wound after the completion of labour. The wound is thoroughly cleansed; all the blood clots, meconium and vernix removed. The margins and apex of the wound are identified. (Fig. 1a). Using half-circle (50 mm) curve cutting needle and silk/cotton thread or chromic catgut No. 1, a through and through whole thickness bite is taken, from the skin, 2 to 1½ cm. away from the cut skin margin to the mucosa taking all the structures including the deep muscles as shown in Fig. 2. Taking a mucosal bite of the cut margin of the mucosa, the stitch is brought from the vaginal wall to the wound to facilitate proper coaptation (Fig. 2a). Another mucosal bite from the opposite margin is taken starting from the wound and the stitch is brought out into the vagina (Fig. 2b), then the same stitch is brought out from the vaginal wall to the skin taking through and through whole thickness bite

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reverse to the first skin bite in the opposite side of the wound margin (Fig. 2c and c1). Finally, the stitch with the same needle and thread is brought out by taking bites from the skin margins of both cut edges of the skin to complete one-layer whole thickness through and through stitch (Fig. 2d). Three to four similar stitches are put for each episiotomy depending on the length of the wound (Fig. 2e). The stitches are removed on the fifth day if cotton/silk is used for the suture (Fig. 2f).

*Wound Care*

There is no special consideration for this technique. We followed the same regime as in the case of three-layer method. But, we prefer dry dressing for this technique with weak spirit acriflavine lotion.

*Results*

All the cases who had this technique hardly had any late complication when followed for the last 15 years. During lying-in period, complications like wound infection with or without edema were recorded. There were 17 complications as shown in Table 1, in the first few days of episiotomy, with this method in the early stages of its use by new hands. But, as many as 99 complications during the same period with the traditional technique were recorded among the control group. Even second time, episiotomy in subsequent deliveries have shown excellent results with this new one-layer technique. Dyspareunia is unknown in our series with no painful scar so far when followed for 1 to 14 years. We consider the following as the criteria for acceptable episiotomy:

(1) There should be a definite indication;

(2) Proper and satisfactory tissue coaptation;

(3) Satisfactory healing;

(4) The wound should be free from pain and edema;

(5) No induration, infection and gaping;

(6) Scar should be satisfactory without any elevation;

(7) No dyspareunia (afterwards).

There are many advantages of one-layer technique over the traditional three-layer as described here. The advantages are summarised as follows:

(a) Easy and completes the whole process in the shortest possible time;

(b) Minimum period of hospital stay;

(c) Wound gaping and induration are unknown with minimum discomfort and pain during lying-in stage ensuring maximum rest and comfort to the patient;

(d) Healing and anatomical and results are excellent with invisible painless scar (afterwards);

TABLE I
*No. of Episiotomies and Complications*

| Technique | No. of Episiotomy | No. of complications | Percentage |
|---|---|---|---|
| Three-Layer Stitch | 1156 | 99 | 8.56 |
| One-layer Stitch: | 2312 | 17 | 0.73 |
| (a) Medio-lateral (right or left) | (a) 2012 | (a) 16 | (a) 0.79 |
| (b) Medial | (b) 300 | (b) 1 | (b) 0.33 |

TABLE II
*Types of Complications of the Different Technique*

| Technique | Complications | No. of cases | Percentage |
|---|---|---|---|
| Three-layer Stitch | (A) During Puerperium: | | |
| | (a) Edema | 26 | 2.249 |
| | (b) Wound Gaping | 22 | 1.9 |
| | (c) Induration | 19 | 1.64 |
| | (d) Infection | 16 | 1.384 |
| | (e) Pain | 8 | 0.69 |
| | (f) Bleeling Wound | 6 | 0.519 |
| | (g) Skin Overlaping | 2 | 0.173 |
| | (B) Late: | | |
| | (a) Dyspareunia | 19 | 1.64 |
| | (b) Bad Scar | 17 | 1.47 |
| | (c) Painful Scar | 6 | 0.519 |
| One-layer Stitch | (A) During Puerperium: | | |
| | (a) Edema | 12 | 0.519 |
| | (b) Bleeding Wound | 3 | 0.1297 |
| | (c) Infection | 1 | 0.043 |
| | (d) Wound Disruption | 1 | 0.043 |
| | (B) Late: | NIL | NIL |

(e) No dyspareunia;

(f) This technique can be used for any type of episiotomy incision.

Virtually, there is no disadvantage of this technique. This is more suitable for domiciliary confinements and can be easily followed by midwives. No detail knowledge of perineal anatomy is necessary for such repair. The complications of the different types of techniques in this study are enumerated in Table II. Wound edema was caused by tight stitching in few cases.

### *Comment*

This technique of episiotomy repair is simple, easy and complications are very less. Midwives and dais can easily perform this operation. This is most suitable for domiciliary obstetric service in the developing countries where shortage of doctors are acutely felt. It could be completed in less than 1/3rd the time taken for the old technique with less suturing material. Patients' acceptance for such stitch is very high. Complications like infection, non-union, gaping, pain and a bad or painful scar with or without dyspareunia are quite frequent experience with the old traditional three layer technique even in the hands of seniors. The worse misery being dyspareunia and painful scar. Since 1965, we have analysed as many as 1156 cases repaired with three-layer technique and observed 99 various types of complications making 8.56 per cent incidence. During the same period, 2312 cases of one-layer repair were analysed with 17 complications giving an incidence of 0.73% only as shown in Table I.

The excellent result of one-layered technique could be attributed to the minimum use of suturing material, less tissue trauma and irritation and minimum fibrous reaction on healing. There is less

chance of infection and edema, which facilitate early and satisfactory healing. This technique makes restoration of normal anatomy easy with proper coaptation. The whole process could be completed within a very short time. Thus all the criteria for a good episiotomy are readily fulfilled. Virtually, fibrosis is minimum with no induration. There is an additional advantage of shortest possible hospital stay with minimum wound dressing demand and one can master this technique on assisting or seeing the operation once or twice.

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*References*

1. Donald, I.: Practical Problems; Lloyd Luke (Medical Books) Ltd., London, 1974, p. 744-747.
2. Harris, R. E.: Am. J. Obstet. Gynec. 106: 660, 1970.
3. Munro Kerr's Operative Obstetrics; BTC, London, 1964, p. 910-917.
4. Malina, Y.: Le Concours Medical. 95: 19, 1975.
5. Williams' Obstetrics; Appleton Century Crofts, Educational Division/Meredith Corporation, New York, 1971, p. 423-428.

*See Figs. on Art Paper I*