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# EPISIOTOMY AND THE IMMEDIATE POST-PARTUM REPAIR OF BOTH OLD AND NEW PERINEAL INJURIES*

Paul Titus, M.D.

PITTSBURGH

THE care and repair of the perineum during and after labor has been the subject of many discourses and conflicting opinions, yet so rapid has been the progress in the technique of this important matter that the former custom of leaving unrepaired a patient torn by confinement is now a mere memory. Within a comparatively few passing years it has become of paramount importance that everyone including obstetrics in his practice should be able to perform an effective perineorrhaphy with proper surgical skill and finesse.

The purpose of this paper is to discuss episiotomy (perineotomy) with its indications and technique, as well as to endeavor to find a common ground for certain views on perineorrhaphy, which are now somewhat divergent. It is also my desire to recommend, as others have done before, that gynoplastic repair of certain long-standing injuries can be successfully accomplished at the time of delivery to the obvious economic and physical advantage of the patient.

## EPISIOTOMY

It is still a matter of open discussion whether or not episiotomy should be performed when a laceration seems inevitable; whether the procedure is ever required for multiparas or should be limited to primiparas; and when it is to be done whether the incision should be lateral or median.

It is axiomatic that clean-cut wounds heal more readily than those that are ragged-edged and contused. This would seem to dispose of any controversy as to the desirability of an episiotomy wound as compared to a birth laceration. The repair of the former is much more simple, and failure of union occurs less frequently than in these edematous, torn tissues.

Episiotomy is desirable, therefore, if laceration appears to be inevitable, or at the first sign that it is beginning. Even before the fourchette begins to give way in front of the advancing head a spurt or trickle of blood is often seen, and this is an invariable indication of tearing of the vaginal mucosa. Episiotomy should be done at once when this occurs.

The median incision has been my preference because the resulting wound is more symmetrical, thus affording greater facility afterward for careful apposition of the separated muscles. Moreover, the muscles are merely separated because the incision follows anatomic lines of junction, being made directly backward in the fibers of the median rhaphe. The muscle bundles are not divided as in the lateral episiotomy. The results from the latter method are excellent in the hands of DeLee and Greenhill of Chicago, who are the foremost advocates of the lateral episiotomy, but repair of the mesially incised perineum is a simpler anatomic procedure for the majority of men.

If the incision is being extended by the advancing head to the point where the sphincter ani is exposed, these muscle fibers are also to be preserved by incising further, but now to one side or the other, so as partially to encircle the anus. The reason for making this lower portion of the wound in a lateral direction is again that anatomic lines are to be followed and division of the muscle bundles is to be avoided.

* From the Department of Obstetrics and Gynecology, St. Margaret Memorial Hospital, Pittsburgh, Pa.



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The indications for episiotomy, therefore, are primarily to avoid inevitable lacerations; less frequently in instances of fetal distress manifested late in the second stage, episiotomy becomes a quick substitute for low forceps; and in multiparae who have been well repaired previously, episiotomy divides occasional dense bands of scar tissue which may so interfere with the advance of the head as to offer an obstacle to delivery and to cause undue delay late in the second stage.

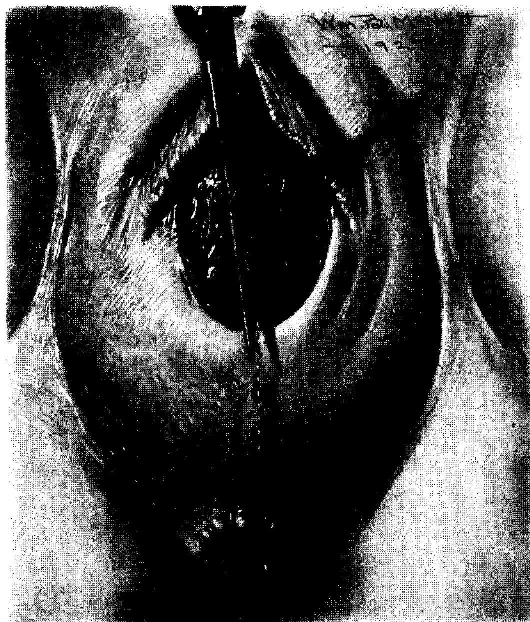

Fig. 1. Median episiotomy (1); the sphincter to be encircled (2) in order to preserve muscle, if original incision is being further extended by advancing head.

Episiotomy is by no means to be confined to primiparae, because a woman whose perineum has been competently sutured at previous confinement is likely to be as much in need of incision as the average primipara.

The operation should not be made a routine procedure in primiparae but like any other well chosen operation should be done only for definite cause.

Certain authorities, notably Potter,[1] contend that perineal laceration is practically avoidable if the vaginal floor be "ironed out" in advance of delivery. Some of this manual dilatation may be useful in many instances, and it is probable that actual breaks in the mucosa and skin may be almost entirely avoided by the maneuver. It does not, however, insure against wide separation of the levator muscles with marked rectocele subsequently, and in these instances it would have been better to have a wound through which the damage beneath could be repaired. I have attended two women who had been "ironed out" at previous confinements by one of the leading advocates of this procedure, both of whom showed bulging rectoceles.

The observation has likewise been made repeatedly that certain women who had no visible laceration of the mucosa or skin at the time of delivery later showed extensive pelvic floor damage and relaxation.

### THE REPAIR OF FRESH PERINEAL WOUNDS

The general consensus of opinion is that perineorrhaphy should be performed immediately following the end of the second or of the third stage of labor unless some urgent contraindication exists to make this impossible. Hemorrhage and shock are practically the only two obstacles to such a repair because this work may be done under local anesthesia if there is any reason for avoiding a general anesthetic.

Some few years ago B. C. Hirst[2] of Philadelphia astonished the obstetrical and gynecological world by insisting that fresh lacerations should not be repaired until the tenth day of the puerperium in order to effect a more accurate apposition of the tissues and thus to accomplish more nearly the same plastic and functional results which follow a later "secondary" perineorrhaphy. He claimed for this so-called "intermediate" repair a smaller percentage of failures of union than in those patients sutured immediately following confinement; but this is probably offset by the women who flatly refuse on the tenth day to submit to such an operation and who, therefore, go entirely unrepaired.

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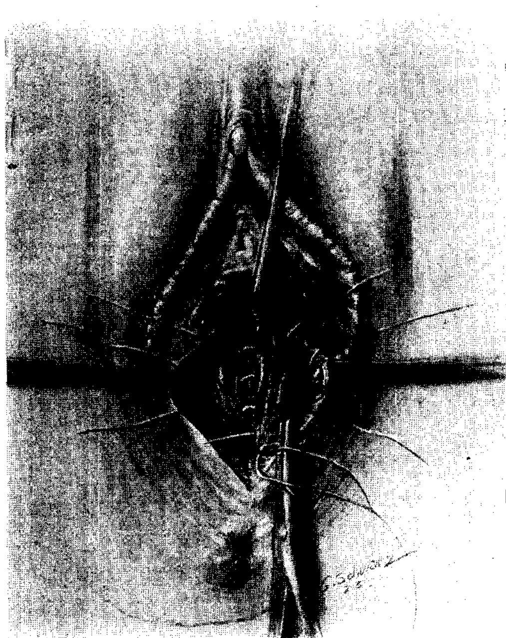

FIG. 2. Perineal repair. Lateral traction affords wide exposure of entire wound especially including upper angle. A clear field is necessary in order to place deep muscle sutures.

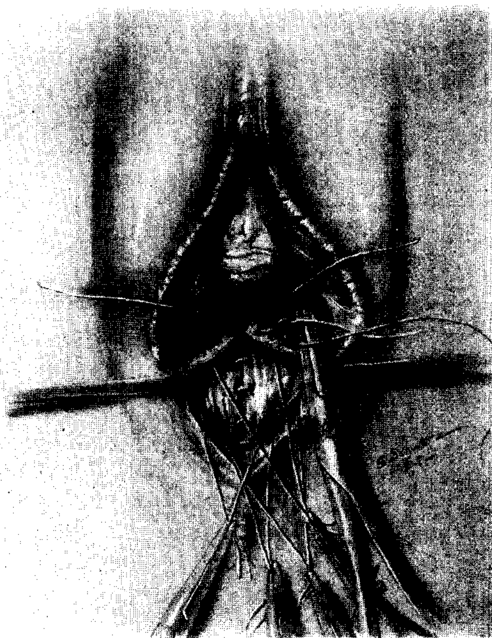

FIG. 3. Perineal repair. Superficial sutures are to be placed in mucosa while deep sutures are still held in clamps. To tie the buried sutures first narrows the field of operation so that the upper end of the wound is concealed from view and may be missed by the sutures.

FIG. 4. Perineal repair. After tying superficial mucosal sutures the buried ones are to be united by a surgical knot. They are to be drawn snug, but not too tight, in order to avoid edema and cutting, and all dead spaces must be eliminated.

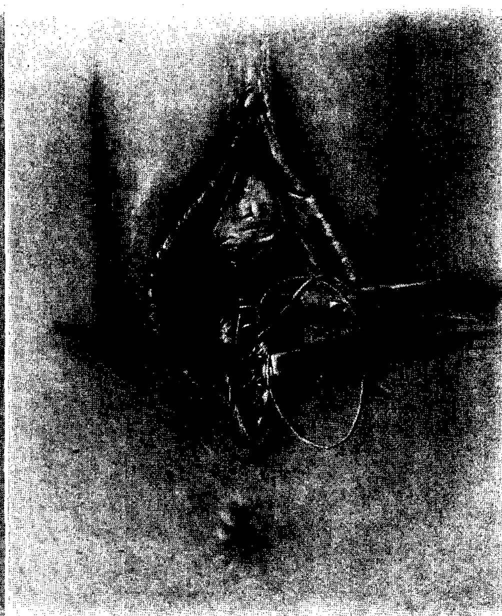

FIG. 5. Perineal repair. Wound in skin surface of perineum is to be closed by a subcuticular stitch, care being taken to avoid leaving dead spaces.

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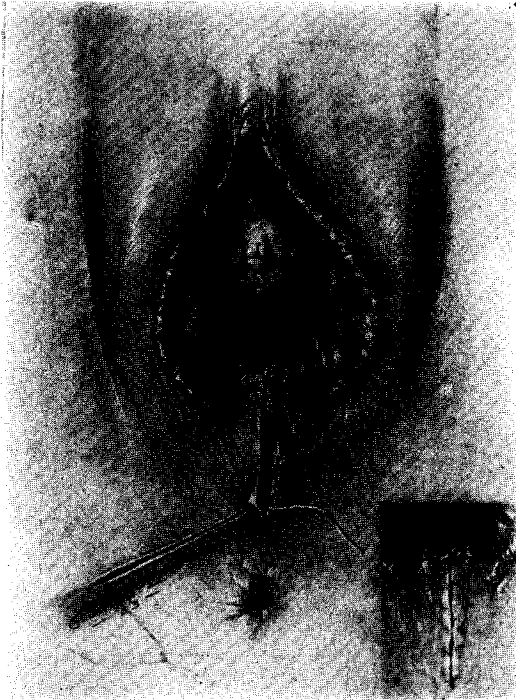

FIG. 6. Perineal repair. Final step in closure, and final appearance of perineotomy wound when repaired. Note that the subcuticular suture line is concealed from effects of lochial flow.

FIG. 7. Post-partum repair of old defects. Shallow abrasion or tear is frequently seen in multiparas even in presence of moderate or fair-sized rectoceles. Mucosa has been separated and muscle fibers with old scar tissue are visible beneath abrasion.

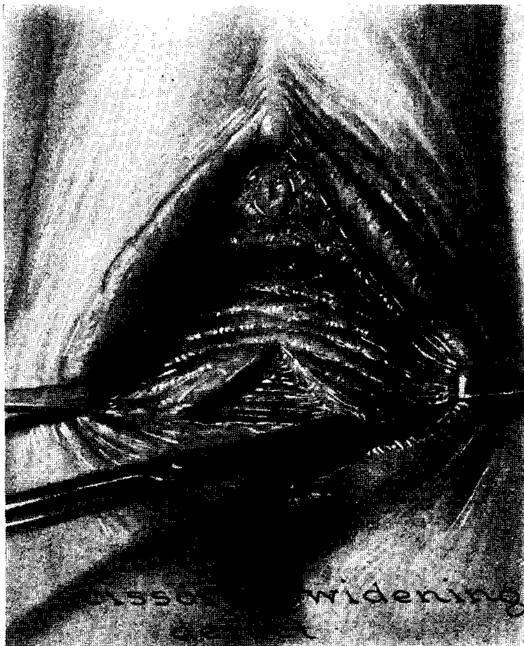


FIG. 8. Post-partum repair of old defects. Widening of laceration in order to expose bodies of levator muscles which have been separated since the previous confinement at which the pelvic floor injury occurred.

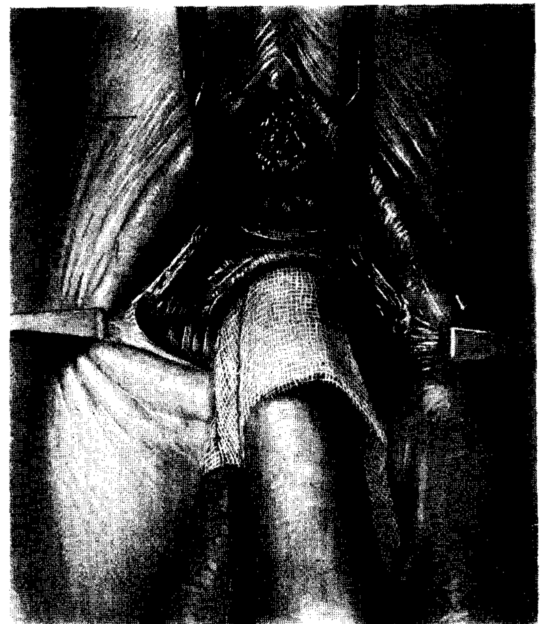

FIG. 9. Post-partum repair of old defects. Blunt dissection upward of mucosal flap in order to obtain higher exposure of muscle bodies.

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His recommendations were of great value in calling attention to the need for more careful technique in the repair of recent lacerations, but in spite of this the opposite extreme is still seen even in current, authoritative textbooks. Here one gains the impression, from the dearth of detail as to how a perineorrhaphy should be done, that practically all that is necessary is to close over any rent in the vaginal floor, chiefly in order to prevent infection. Needless to say many practitioners accomplish little else when they "take stitches."

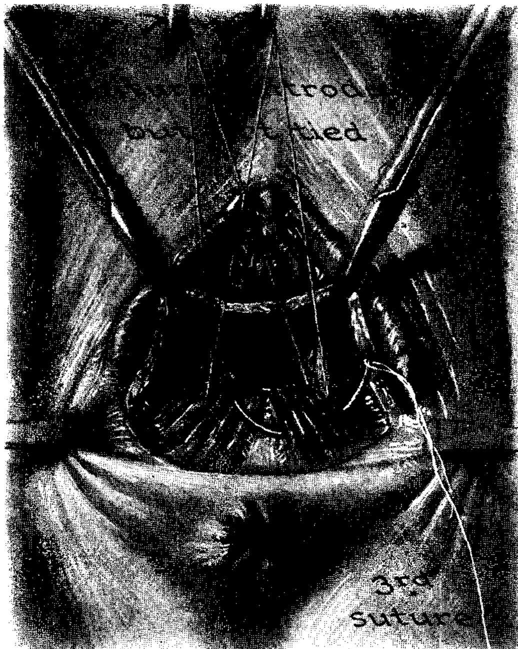


Fig. 10. Post-partum repair of old defects. Deep sutures placed as in primary perineorrhaphy.

Mere closure is not sufficient but the accompanying illustrations depict the various steps in such detail that no further attempt will be made to describe a primary perineorrhaphy. It is desired, however, to emphasize several essential points.

Proper exposure is necessary in order to have a view of the extreme upper angle of the wound; the bodies of the muscles must be brought together from this upper angle down through the mid-line of the entire perineal body in order to correct their separation; and dead spaces must not be left in closing the skin. By using a subcuticular stitch the catgut is not exposed to the lochial flow, and even though this line of suture should give way and the skin edges separate, as is sometimes inevitable, the muscles will hold if properly sutured, and give a final result which is functionally excellent.

## GYNOPLASTIC REPAIR OF OLD DEFECTS IMMEDIATELY FOLLOWING CHILDBIRTH

Even in multiparae with considerable pelvic floor relaxation delivery frequently causes an abrasion or shallow tear at the

Fig. 11. Post-partum repair of old defects. Pelvic floor defect having been repaired by union of separated muscles, the redundant mucosa is trimmed away. Closure of vaginal mucosa and skin edges proceeds as in primary repair. (See Figs. 4, 5, and 6.)

mucocutaneous junction. One has the choice of neglecting this entirely or of suturing it merely on the principle of closing any superficial open wound. For many years it has been my custom to take advantage of this abrasion by deliberately enlarging the opening in order to attack the rectocele.

There is no particular fear of doing a fairly extensive primary perineorrhaphy immediately post partum if the wound exists, and there is no good reason for not widening this abrasion as illustrated in

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Figure 8, dissecting the mucous membrane flap sufficiently to expose the muscles, uniting them in the usual way and closing the wound precisely as one is accustomed to do when a deep laceration or episiotomy wound makes this necessary.

The arguments of edema and distortion of the tissues from the traumatism of labor, as well as that of the risk of phlebitis from thus opening up possible avenues of infection, are always advanced when such a procedure is discussed or recommended. In a multipara with any degree of old perineal relaxation, edema of the vulva from the delivery is negligible, and serious infection rarely results from operative work at the vulval outlet.

All the patients in our obstetrical department are anesthetized for delivery (Gwathmey rectal analgesia and nitrous oxide with oxygen wherever possible, and invariably ether for delivery) so that there is ample opportunity for repair work. Indeed in these days to deliver patients without anesthesia smacks of ancient midwifery and is inexcusably brutal indifference for a doctor to display.

Such repair work is an economic advantage to the patient and results are surprisingly good. Primary union occurs as readily and as constantly as with the ordinary perineorrhaphy to which we are all accustomed. Occasionally I have deliberately incised and repaired an untorn rectocele but as a general rule prefer not to interfere unless a torn area already exists. Immediately post partum I do not attempt extensive repair work involving the bladder floor and I am entirely unwilling to invade the cervix except for definite reason such as fresh and bleeding lacerations. In the cervix after sufficient dilatation to pass a child's head such misleading distortion is always to be seen that it is useless to attempt more than the repair of fresh tears in the cervical lips; moreover there is considerable risk of infection of the uterine cavity from operative invasion of the cervical tissues at this time.

Several authorities have discussed the suitability of operating during the puerperium for the cure of old lacerations of both cervix and perineum. Hussey[3] has reported a number of cases successfully repaired and quotes Francis H. Stuart as having made this suggestion in 1906. Hussey operated from one to fifteen days post partum; Brandess[4] performs secondary perineorrhaphies on the sixteenth to eighteenth day post partum; and Rudolphson[5] discusses such a procedure with favor.

My ideas are more conservative, however, and conform more nearly to those expressed by Bubis[6] who operates in the majority of his cases immediately after the expulsion of the placenta. It is true that a small minority of his reported operations were done sometime within the first week. Moreover, in his immediate repairs he does not limit himself to vaginal floor injuries, approaching with little or no hesitation the more extensive work necessary in instances of old cervical laceration or cystocele formation.

In this respect my contention is that any extensive work which may be necessary on the cervix or the bladder floor falls properly into the class for which a typical secondary operation is advisable, and would better be done at a later time. On the other hand, many old injuries of the rectocele type could be repaired at confinement but are now neglected solely because the injury is not a fresh one.

To do such plastic repairs at any other time during the early puerperium necessitates a second anesthetic with all the psychic disturbance which comes to the patient from a second trip to the operating room. This is especially unfavorable if she is nursing her newborn baby. As compared to the immediate repair which avoids not only this but also any prolongation of the patient's usual post-partum stay in the hospital, the delayed repair saves nothing more than a few days' time at the risk of partial failure. If any postponement is necessary it would seem advisable to wait until involution is com-

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plete, then to carry out an ordinary secondary repair.

CONCLUSIONS

1. Episiotomy when necessary affords a clean-edged, sharply cut wound which may be repaired more easily and heals more readily than the contused, ragged-edged wound of the ordinary birth laceration.

2. Episiotomy should be performed to avoid inevitable or beginning lacerations, but may also serve the purpose of hastening delivery if the delay is due to a rigid perineum or to scar tissue from previous repairs. It is likewise a useful substitute for low or outlet forceps application in instances of fetal distress late in second stage.

3. The median episiotomy, encircling the anus if necessary in order to preserve the sphincter, is preferable to the lateral episiotomy because the former follows the anatomic lines of muscle union, and does not divide muscle bundles.

4. Mere avoidance of breaks in vaginal mucosa or in skin does not insure against submucous muscle separation with subsequent rectocele formation. Manual dilatation of the vulva before delivery (the Potter "ironing") therefore is not a substitute for episiotomy or an invariable preventive of pelvic floor relaxation.

5. Fresh perineal wounds should be repaired immediately after delivery of the fetus and before delivery of the placenta unless the latter separates too soon to allow this.

6. Properly to repair a perineal laceration its extreme upper angle must be visible; buried interrupted sutures must approximate and hold the levator muscles from this upper angle down through the entire perineal body to the skin surface; mucosa and skin are then united separately over the muscles.

The chief fault in the usual repair is that no effort is made to do more than merely close the wound, and pelvic floor relaxation inevitably follows if muscles have been divided and are not reunited.

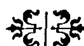
7. Multiparae having old rectocele formation often show abrasion or shallow laceration after delivery. This may be widened, and the muscle bodies exposed by the blunt dissection upward of a flap of vaginal mucosa followed by closure in the usual way, thus actually repairing the rectocele under the same anesthetic by which the patient has been delivered.

8. More extensive gynoplastic work on the cervix or the bladder floor for chronic lesions is a dubious procedure at the time of delivery. Likewise, such operations during the early puerperium offer little advantage over a secondary repair at a later date after involution is complete.

9. The technical steps in episiotomy and perineorrhaphy are illustrated by drawings.

BIBLIOGRAPHY


1. Potter, I. W. Version. *Am. J. Obst. & Gynec.*, 1921, i, 560.
2. Hirst, B. C. Intermediate repair of injuries of the genital canal in childbirth. *Am. J. Obst.*, 1917, lxxvi, 50.
3. Hussey, A. A. Operating during the puerperium. *Am. J. Obst.*, 1916, lxxiii, 1014.
4. Brandess, T. Ist die sekundäre Dammnaht empfehlenswert oder nicht? *Zentralbl. f. Gynäk.* (suppl.), 1926, I, 1459.
5. Rudolphson, W. Ueber die Frage der Sekundärnaht am Damm in Wochenbett. *Zentralbl. f. Gynäk.* (suppl. Feb 16), 1924, xlviii, 344.
6. Bubis, J. L. Gyneplastic repairs following childbirth. *Am. J. Obst. & Gynec.*, 1925, x, 213.

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