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REVIEW ARTICLE **OPEN ACCESS**

Knowledge of Episiotomy: A Short Review

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ABSTRACT

Studies have concluded that during the second stage of labor, a surgical procedure called an EP is performed. Additionally, studies have shown that this involves making an incision in the perineum and the posterior vaginal wall. Studies have also shown that this surgical operation is performed frequently worldwide. Studies on other subjects showed that during childbirth, the vaginal opening may be enlarged through a procedure called episiotomy to facilitate the process. Studies also revealed that the period following childbirth holds great significance in a mother's journey, especially for those who underwent a vaginal birth with an episiotomy due to medical necessity. Thus, in our review, we were discussing EP use, types, indications, contraindications, equipment, management, complication, clinical implications and current trends.

Key words: *EP, Use, Types, Indications, Contraindications, Equipment, Clinical Implications, management, complication, current trends.*

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INTRODUCTION

Various studies have been showing that, it has been shown through studies that the episiotomy was first made to lower the risk of third- and fourth-degree perineal tears happening during breastfeeding. [1] Additionally, research has shown that, to help with difficult births, it is often suggested to make a controlled cut in the perineum. Additionally, studies have shown that, in a perfect world, an "episiotomy (EP) would release pressure on the perineum, resulting in an incision that could be quickly repaired, in contrast to the uncontrolled vaginal damage that would otherwise occur. Anatomy research has shown that there are many types of cuts used in EP". Studies also concluded that ,"these include the midline cut, the modified median cut, the mediolateral cut, the J-shaped cut, the lateral cut, the anterior cut, and the radical cut".[2] [3] Additionally, studies have shown that midline (in the US and Canada) and mediolateral are the two most often used approaches. EP was originally a widely utilized technique in the United States. However, in 2006, "the American College of Obstetricians and Gynecologists (ACOG) issued a guideline against the practice of doing EP on a regular basis. On the other hand, studies have shown that selective EP can still be helpful. It should be done based on clinical judgment and any signs that the mother or baby may be showing". [4] [5] [6] Thus, in our review, we were discussing about EP.

USES

Studies have shown that during childbirth, it is possible for vaginal tears to occur, especially when the baby's head passes through the introitus, especially in cases of rapid descent. Additionally, studies have shown that EP is used to prevent soft tissue tearing, which can involve the anal sphincter and rectum. Tears can affect the perineal skin or extend to the muscles, anal sphincter, and anus. For the safe delivery of the baby and to avoid potential complications, the midwife or obstetrician may choose to perform a surgical incision in the perineum using specialized tools. Stitching, also known as sutures, is utilized to mend the cut. EP is a common procedure in many childbirth centers.[7]

TYPES [8]

"Medio-lateral = Studies have shown that the incision is made diagonally from the midpoint of the fourchette towards either the right or left side. The direction is diagonal, following a straight line approximately 2.5 cm (1 in) from the anus, specifically the midpoint between the anus and the ischial tuberosity".

"Median = Studies have shown that the 2.5 cm (1 in) incision begins in the center of the fourchette and continues down the midline of the back".
"Lateral = Studies have also shown that, from around 1 cm (0.4 in) out from the center of the fourchette, the incision starts and continues lateral. Some practitioners have strongly opposed lateral incisions due to their drawbacks, which include the risk of injury to the Bartholin's duct".
"J-Shaped = Studies have also shown that the incision begins at the center of the fourchette and extends backwards along the midline for approximately 0.59 inches (0.15 centimeters). From there, it curves downward and outward towards the 5 or 7 o'clock position to avoid the internal and external anal sphincters. This procedure is also not commonly utilized in most settings".

INDICATION
There have been limited studies conducted to demonstrate the effectiveness of EP for specific procedures. A review of the Cochrane database conducted by Xu Qian et al. found that implementing a selective episiotomy strategy for women undergoing non-operative vaginal birth led to a significant reduction in severe perineal injuries compared to those who received routine episiotomies.[9] However, there is currently studies have shown that there is no definitive evidence to support the assertion that it provides benefits when performed as an independent elective procedure.[10]
As per a publication in Sultan AH in 2019, the World Health Organization is still investigating the purpose of EP.[11] Due to this, indications are still kept confidential, and the healthcare team should determine them on a case-by-case basis whenever feasible. In certain cases, medical professionals may opt to perform an episiotomy due to factors such as shoulder dystocia, fetal distress, and other medical conditions. These conditions help facilitate an operational vaginal birth. [11,12]

CONTRAINDICATION
A study that looked at a group of women who had more than one baby revealed that using an EP might make third- and fourth-degree tears more likely in women who have given birth more than once. Based on the results of such studies, the American College of Obstetricians and Gynecologists now recommends against the routine use of EP.[5]

EQUIPMENT [13]
1. "Episiotomy scissors
2. Needle holder
3. Stitches
4. Surgical drape
5. Local anesthetic
6. Hemostatic forceps/tissue forceps
7. Sim's speculum
8. Foley catheter
9. Syringe, needles
10. Scalpel/blade
11. Kidney tray"

CLINICAL IMPLICATION
Studies have also shown that it is important to have a clear understanding of both the method of episiotomy and its history, as the procedure is still being used in medical practice. Additionally, studies have concluded that the clinical significance of this finding has not been established through the completion of randomized controlled studies. Furthermore, studies have shown that its usefulness is contingent upon the preferences of healthcare professionals in making therapeutic decisions. Studies have shown that many women are open to the idea of having an episiotomy if it is deemed necessary.[13] Studies have shown that patients who have received education and written information on episiotomies tend to have higher levels of acceptance and lower levels of fear during the labor and delivery process. [14] Furthermore, studies have shown that this study found that "selective use of episiotomy during vaginal delivery is associated with lower rates of posterior perineal injuries, reduced need for suturing, and improved healing outcomes". [15]

MANAGEMENT
Studies have also concluded that during the postpartum period, the patient has to be closely checked for any indicators of discomfort as well as urine incontinence. Additionally, studies have also concluded that the patient also needs to be observed for any changes in bowel or bladder control. Studies have also found

that by the time the healing process was complete, which would take about six to eight weeks, the tissues would have reabsorbed the sutures used to close an episiotomy. Furthermore, studies have also concluded that even if there is no cure for it, it is very important to maintain high standards of personal cleanliness in order to speed up the healing process.[16]

MEDICAL MANAGEMENT [17]

1. NSAID like paracetamol & other NSAID for pain relief.
2. Studies have also concluded that following perineal repair, laxatives are recommended since passing stool might result in wound dehiscence. Furthermore, studies have concluded that stool softeners, including lactulose, are often prescribed for a period of ten days following surgery. Additionally, these medications need to be titrated in such a way that the patient's stools remain soft rather than becoming loose.
3. Studies have also concluded that broad-spectrum antibiotics are recommended in the early postoperative period in order to reduce the risk of wound infections and promote quicker wound healing.
4. Studies have also concluded that the patient should be placed in such a position that it will help them to reduce perineal oedema and avoid strain on the site of the episiotomy during the first forty-eight hours following the surgery. Furthermore, studies have concluded that patients should try to sleep on their side as much as possible while breastfeeding and thus minimize the amount of time they spend seated in various positions. In addition to this, studies also concluded that the patient must be told to avoid participating in any activity that might result in an increase in the patient's intra-abdominal pressure during the first six to twelve months following the birth of the baby.
5. Studies have also concluded that after using the toilet, the wound has to be washed carefully and patted dry before the next step can be taken. Studies have also concluded that the patient should regularly inspect the wound using a hand mirror in order to look for any signs of wound collapse.

PHYSIOTHERAPY MANGEMENT [18,19]

1. Studies have also concluded that sitz baths may be helpful in relieving discomfort and relaxing the pelvic floor.
2. Studies have also concluded that ice packs may help in reducing swelling and providing some relief from the pain. Additionally, research has shown that in the early days after giving birth through a vaginal delivery with an episiotomy, a randomized controlled trial suggests that putting a bag of crushed ice on the perineal area for one application significantly reduced perineal pain for women. Studies have further concluded that the episiotomy was performed during the vaginal birth process. During the natural birth via the vaginal route, an episiotomy was carried out.
3. Studies have also concluded that effective pain relief may be achieved using transcutaneous electrical nerve stimulation (TENS) technology. Studies have further concluded that both low-frequency TENS (five hertz and one hundredth of a second pulse) and high-frequency TENS (one hundred hertz and one hundredth of a second pulse) have been shown to be both safe and effective in reducing pain when administered for thirty minutes in close proximity to the site of an episiotomy incision.
4. Studies have also concluded that Kegel exercises must be taught to the patient in order to train the pelvic floor muscles.

COMPLICATION

Studies have also concluded that experts and scientific agencies have cast doubt on whether or not an episiotomy should be performed on a broad basis as being suitable. In addition, a number of professional medical organizations, in addition to advocating for the rights of patients and women, have linked it with obstetric violence.[20] Furthermore, studies have concluded that episiotomy has been linked to an increased risk of needing a repeat treatment during the following delivery due to the narrower perineum and weaker scar that results from the procedure.[21] Studies have further concluded that pain after having an episiotomy is rather common after delivery, and this may result in pain during the first intercourse, especially if it occurs during the first three months following delivery.[22] Additionally, studies have further concluded that the risk is raised if episiotomy wound occurs within the first six weeks following intercourse, and in very rare cases, women may present with gaping episiotomy wounds.[23]

Studies have also found that the incision causes a lot more blood loss in the mother, an average depth of injury to the posterior perineum, problems with the anal sphincter, wounds that don't heal properly, more pain in the first few days after giving birth, and infections.[24] Also, research has shown that episiotomies done during the first vaginal delivery greatly and independently raise the risk of having

more spontaneous tears and episiotomies.[21,25] Researchers have also found that the Redness, Ecchymosis, Edema, Discharge, and Apposition scale (REEDA scale) can be used to measure the harm that comes with episiotomy.[26] One of our studies, which took place at Mulago Hospital in Uganda, found that higher REEDA scores mean that either the perineal tissue is not healing well or it has been severely damaged.[27] Researchers have also found that this might be because spontaneous perineal tears happen more often along the natural tissue planes and are easier to fix than episiotomies. Furthermore, research has shown that the gaping wound is much more common in people who have had episiotomies compared to people who have had spontaneous perineal tears.[27] Additionally, studies have also concluded that episiotomy is associated with a higher risk of infection and the need for secondary re-suturing, according to research that was conducted in Mulago.[28] Additionally, studies have shown that episiotomy-related pain can linger for more than 14 days after delivery.[28] Studies have corroborating the claims that cutting across tissue planes can causes more pain than spontaneous tissue tears that typically follow the natural tissue planes.[29,30,31,32] Studies have also concluded that episiotomy is associated with a higher frequency and severity of postpartum perineal pain, according to the findings of a meta-analysis carried out.[33]

CURRENT TRENDS IN PRACTICE

Additionally, studies have shown that "episiotomy may be performed in a variety of ways, with prevalence rates ranging from as low as less than a third to as high as eighty-six percent, depending on whether it is done routinely or in a restricted way".[34] Additionally, studies have shown that the "World Health Organization (WHO) Guidelines for Developing Groups emphasize the need for health systems to adopt a policy of restrictive rates of not more than 10% rather than routine use of episiotomies in order to reduce their potential complications and the use of additional resources for their treatment, as restrictive episiotomies have shown benefits".[35,36] Studies have also concluded that this is because routine use of episiotomies has been shown to increase the risk of complications and the use of additional resources for their treatment.[36] Additionally, research has shown that a mediolateral episiotomy is the best one. This should be done with good pain relief, either through an epidural or a local infiltration.[37]

Moreover, studies have also shown that "episiotomy is still one of the most routinely performed obstetric operations worldwide".[38,39] Studies have also concluded that this is "despite the disagreement surrounding the validity of the procedure's routine usage in obstetrics and the fact that liberal use of the procedure has been discouraged. Studies have shown that this restrictive episiotomy method has some benefits, especially in reducing damage to the posterior perineum. However, the strictest definition of restrictive use was to not do an episiotomy unless it was absolutely necessary for the unborn patient's health. Other meanings of restrictive episiotomy are to "avoid the procedure," to employ only when "medically necessary," or to refrain from doing an episiotomy in order to prevent a laceration".[40] Thus, studies have also concluded that, because of this, striking a balance between the risks and benefits of having an episiotomy performed is not always easy. So, studies concluded that if the baby has to be delivered right away, an episiotomy may be necessary to avoid complications.[40]

Thus, according to studies, the lack of evidence supporting the benefits of episiotomy has led to a significant decline in the practice across the majority of countries. This has resulted in a significant decline in the number of people undergoing the procedure.[41] Studies showed a varied decline in episiotomy rates for operational vaginal births in France, ranging from as low as 25% to as high as 75% in specific geographical locales. This drop in rates has occurred throughout the country.[41] From 15.5% in 2013 to 9.3% in a study in 2017, a decline was realized in France.[42]

CONCLUSION

In the second stage of labor, it is common for a surgical incision called an EP to be made on the perineum. EP may be necessary in certain situations, such as when there is fetal distress, complicated infant positions like breech, premature births, large newborns, or during a vacuum-assisted delivery. This material highlights the positive impact of maternal benefits, such as reducing the risk of perineal injuries, pelvic floor dysfunction, prolapse, urine incontinence, fecal incontinence, and sexual dysfunction. It was anticipated that the fetus would experience advantages from a reduced duration of the second stage of labor due to a faster and more natural delivery. This was one of the potential advantages. There are potential complications associated with the episiotomy procedure, including more severe tears, dysfunction of the anal sphincter, and discomfort during sexual activity. Infrared lamp therapy is an innovative treatment that harnesses the power of light to alleviate pain, reduce inflammation, and promote the healing process for EP wounds.

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