EPISIOTOMY : A CHALLENGING OBSTETRIC INTERVENTION

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ABSTRACT

The professional literatures on the development of widely practiced procedure, episiotomy through the years from the first publication in 1742 are reviewed. It reveals the change in number of publication as well as the contributors to the development of perception about episiotomy. So it consisted expression of opinion of doctors initially then the co-workers like nurses and researchers and clients or consumers themselves too. It concludes that episiotomies prevent anterior perineal tear but fails to accomplish other benefits traditionally ascribed to pelvic floor damage and relaxation including its sequel and also protection of newboin from intracranial haemorrhage and intrapartum asphyxia. Episiotomy substantially increase maternal blood loss during delivery and risk of anal sphincter damage with their long term morbidity. There is an urgent need to restrict the use of episiotomy in vaginal delivery.

Key Words: Episiotomy, Perineal tear, anal sphincter damage.

INTRODUCTION

Episiotomy, one of the commonest surgical procedures in obstetrics was introduced in clinical practice in eighteenth century. As far back as 1742 a report published suggested a surgical opening of the perineum in difficult deliveries for the prevention of severe perineal tear.[1] The liberal use of episiotomy implied a better future sexual function and reduction of urinary & faecal problem due to lax perineal muscles in addition to prevention of maternal & fetal injury.

1930-1950

The development in the use of episiotomy is mainly due to swift from home to hospital delivery & delivery in dorsal position. The type of episiotomy given are mediolateral, & midline. Its use has been liberal or restrictive depending upon the people and places related to child birth.

The claimed benefits of episiotomy are prevention of maternal and fetal injury during vaginal delivery. Severe perineal injury can cause damage to pelvic floor resulting into laxity & its sequelae like urinary & faecal incontinence, loss of sexual pleasure. Mechanical and hypoxic conditions are fetal injuries usually seen.[2] There has been literature supporting this procedure in the first half of last century. Joseph B. DeLee is credited with introducing both episiotomy & associated outlet forceps to modem obstetric.[3] Dr. Gainey was a meticulous observer who reported his studies about this subject in 1930, 1940 & 1950. After supervising both procedures, he concluded that instrumental delivery with episiotomy is better than without it.[4,5]

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1950 -1980

In 1983, a comprehensive review of literature on benefit & risks of episiotomy was published by Thaker & Banta.[6,7,8]

It is almost universally accepted that injury to anal sphincter (third degree tear) with concomitant disruption of the rectal mucous (fourth degree tear) is a common complication of perineal injury with or without episiotomy.

While discussing the possibilities of preventing perineal laceration (third & fourth degree tear) the most indirect type of data related to this topic is the observation of trends over time. In France the episiotomy rate increased from 8.1 to 32.1% without significantly changing the rate of third & fourth degree tear (0.7% in 1972 to 0.6% in 1982).[9] Reynold and Yudkin[10] reported a rapidly decreasing use of episiotomy from 72.6% to 44.9% (between 1980 to 84). It also fell nearly by half in parous women 36.8% to 15.4%, while there was no significant change in the incidence of anal spinster damage.

The teaching continued to assert that episiotomy prevents perineal laceration[11] & some claim that an episiotomy is generally preferable to a spontaneous laceration.[12] This has been felt by many authorities that episiotomy (clean out) is easier to repair.[13]

The other relevant information available is that nearly every intervention including episiotomies was used more frequently at the hospital than in smaller centre (78.1% to 47.2%). The third degree tear rates however, were nearly identical (9.5% and 9.7% respectively).[14] It is interesting to note in a study carried out by Mayes et. al that[15] the episiotomy rate varied according to the attendant at delivery. The midwives used episiotomy in 24% of cases while physician used in 76%. The respective rectal injury rate, all of which occurred as extension of midline episiotomies, was 6.9% & 20.7%. Flint et. al found that when the episiotomy rate is too similar (42.2 and 34.3%) between junior doctors and midwives the resultant third degree tear is the same 0.5% each.[16]

The review concluded that the use of episiotomy does not decrease the risk of anal sphincter damage but increases the frequency and severity of perineal damage compared with what would occur spontaneously.

1980-1995

The pace of research on episiotomy has increased dramatically since this seminal review (8) and the quality of this data exceeds anything available, till 1980. In 1995 Woolley published a review of the English language literature since 1980.[17] In operative vaginal delivery episiotomy still hold a place. Combs et al.[18] reported in 2832 consecutive cases of episiotomy in operative vaginal delivery using multiple regression about compounding factor concluded that only midline episiotomy found to be the strongest predictor of anal sphincter damage.

Other aspect of study was pain during labour and postpartum pain related to episiotomy. Five randomized control trials (RCT) have been reviewed (0 to 10 scale for pain). There has been some variation in each trial. Harrison et al[19] found no difference in pain on the first 4 days postpartum among patient with episiotomy compared to first and second degree perineal laceration. In another study in Stockholm[20] patient with episiotomy used more analgesic for reported pain than those with spontaneous 1st and 2nd degree tear. There are conflicting reports on dyspareunia in women who had episiotomy.

While studying the problem of wound healing and infection, a 4 year retrospective study[10] observed the management in one hospital. It has noted no change in perineal infection rate as the use of mediolateral episiotomy decreased from 52.4% to 27.9%. The information from Argentin trial[21] showed low and essentially identical infection rate (1.6 and 1.8%) in both liberal and restrictive use of episiotomy groups, but significant difference in wound breakdown (9.4 & 29.8%) & delayed healing (4,5 & 20.5%). Some observational studies have found much greater infection rate 5 times to 11 times[15] of wound after mediolateral episiotomy than after spontaneous tear.

There is a RCT study,[22] which provides the evidence on ease of repair. This study found more suture material used in liberal episiotomy than restrictive group the former requiring more suture time than eliminating the time advantage that would have been enjoyed by somewhat shorter second stage. Sleep et al 1985[23] states that in current obstetric practices a decade ago "the most common cause of perineal damage is episiotomy". One of the tables in the publication is given below to indicate the position at the time of review of risk & benefit of episiotomy.

One of the claimed benefit for episiotomy is prevention of fetal injury specifically intracranial haemorrhage and intrapartum asphyxia. It is difficult to find studies which could be mentioned directly pointed to the relation of episiotomy and foetal injury. Intracranial haemorrhages are directly related to birth injury. Crespigny & Robinson[24] reviewed the 69 births of low birth weight babies. All these neonates had ultrasound examination of the head carried out. They concluded that the presence or absence of episiotomy did not change the incidence of intraventricular haemorrhage (IVH) in breech, forceps or spontaneous vertex delivery. Two Detroid researchers[25] studied newbom weighing (500 - 1500 Gm) and concluded that "fetal head compression is not a major determinant.." of IVH.

Table I : Episiotomies and third-degree lacerations in five randomized controlled trials

N = Nulliparous; P = Parous; ?=data reported as percentages shown; numerators cannot be ascertained exactly
** All episiotomies are mediolateral, except those in Klein et al. (50), which are all midline.*
@ Third and fourth degree spontaneous tears and extensions of episiotomies.

At a University Hospital in Jamaica, a focused retrospective investigation of low birth weight babies (<2500Gm) without known prenatal complication pointed out that neonatal mortality was equal with or without episiotomy. One of the RCT reported that Apgar scores were not affected by the use of episiotomy.[26] The others foetal outcome variables were studied and no effect of episiotomy were seen for rate of infant resuscitation, neonatal intensive care unit admission[27] or unspecified "baby complication".[28] In case of Shoulder dystocia, episiotomy and if needed be extension of it is described as the first step. Methodological trials of any manoeuvre to relieve Shoulder dystocia would present formidable technical and ethical obstacle. So there is hardly any article specially mentioning about it except one published article[29] found that use of episiotomy did not appear to reduce the risk of Shoulder dystocia.

Other risk factors studied were on more blood loss than average in women with episiotomy in comparison to one without episiotomy. One of the studies reported the decrease in haematocrit value of about 10 point between admission and postpartum period and episiotomy was found to be one of the confounding factor related to increase blood loss.[30] The definitive morbidity of anal sphincter damage in episiotomy extension to third degree tear is reported by most studies. Sultan et al. found that 47% of women with third degree tear remained symptomatic 6-21 month after delivery. Having anal incontinence (mostly to flatus, a few to liquid stool) and/or faecal urgency compared with only 13% of control women.[31] Anal manometry recorded lower maximal resting pressure and squeeze pressure and shorter canal length in patients with third degree laceration in a recent review by Horden and Bergsjo[32] noted long term morbidity of severe laceration especially anal incontinence has in general been under estimated.

In the decade of eighties and nineties work has progressed on measuring psychological and interpersonal sequel of obstetric technology as 'psychosocial morbidity'. In one report, Kem[33] stated that iatrogenic sphincter injuries constituted one of five major categories of malpractice suits in United States and about half of these are secondary to midline episiotomies.

1995 Onwards

For the woman episiotomy is a small cut in the birth passage for the easy arrival of her newborn.[34] An article "Social Construction of Episiotomy" (review Journal of Clinical Nursing) explores the meaning of episiotomy & highlights that episiotomy means more than just a cut in the perineum.[35] The meaning depend upon social context, professional background and personal experience. There are very few studies on the viewpoint of those who are actually experiencing it & there is a need for research.

Recently there have been many publications pointing out that episiotomy especially liberal episiotomy should be avoided as much as possible. Canadian researcher in 2000 says 'Cut out routine episiotomies.[36] They found women who had delivered without episiotomy fared as well or better than those receiving the procedure. In an article "is routine use of episiotomies justified" the findings conclude: "here is a clear evidence that it may cause harm such as greater need for surgical repair and a poorer future sexual capability". Episiotomy rate of 30% do not seem justified.[37] In the central hospital of Nepal Episiotomy rate of 49.3% was found in the year 1999, (Unpublished data)[38] The Reviewer's on episiotomy for vaginal birth (Cochrane Review) gives the conclusion that restrictive episiotomy policies appear to have a number of benefits compared to routine episiotomy policies. With restrictive episiotomy there is less

posterior perineal trauma, less suturing and fewer complications, there is no difference for most pain measures and severe vaginal or perineal trauma. But there was an increased risk of anterior perineal trauma, in these cases.[39] Recent large RCT, "the effect of episiotomy on perineal damage," have confirmed that episiotomy is associated with an increased risk of damage to perineum.[40] There are 21 pages of write up "Episiotomy, Ritual Genital Mutilation in Western Obstetrics" is found in

Website: http://www.changesurfer.com/Hlth/episiotomy.html

With these studies the case for restricting the use of episiotomy is conclusive.

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