

Pain after episiotomy — a comparison of two methods of repair

PETER C. BUCHAN, B.SC, MRCOG, MRCCGP

Senior Registrar in Obstetrics and Gynaecology, Leeds Maternity Hospital

JOHN A. J. NICHOLLS, MB, CH.B, DRCOG

Vocational Trainee, Carlisle; formerly Senior House Officer in Obstetrics, Leeds Maternity Hospital

SUMMARY. Episiotomy is a very common operation but little is known of its short-term or long-term morbidity.

A prospective study was designed to record postpartum perineal discomfort and to investigate the presence and persistence of dyspareunia following episiotomy in 140 primigravidae. A comparison was made between those whose perineal skin was sutured with a subcuticular polyglycolic acid ('Dexon') stitch and those sutured with interrupted black silk stitches.

Patients sutured with subcuticular 'Dexon' had significantly less perineal discomfort on the third, fourth, and fifth postpartum days. Patients who had epidural analgesia in labour had significantly more pain during the first five postpartum days irrespective of the suture material used.

The timing of first coitus after delivery did not influence the presence or persistence of dyspareunia. Dyspareunia was commoner and lasted longer in patients sutured with 'Dexon' and it was also commoner in older primigravidae irrespective of the suture technique.

Introduction

MUCH attention has been focused on the relief of pain during labour, but following delivery episiotomies continue to cause discomfort both in the immediate puerperium and later as sexual intercourse is resumed.

General practitioners have to care not only for patients confined in practitioner units but also, with the common practice of 48-hour discharge, from specialist units; thus they have to cope with the short-term

problems of the puerperium in the majority of their maternity patients. They also have to deal with the later problems, particularly of sexual dysfunction, which arise after discharge from specialist care or which patients are reluctant to mention at the hospital post-natal clinic.

Most recent studies have been directed at reducing immediate perineal discomfort by variation in the type of episiotomy (Myerscough, 1977), suture material (Beard *et al.*, 1974; Livingstone *et al.*, 1974), or drug therapy to reduce local oedema and inflammation (Howat and Lewis, 1972). Details about longer term complications, in particular dyspareunia, are scant. O'Leary and O'Leary (1965) state that the "long-term results were excellent" and Fleming (1960) that there were "no poor results". Only Beischer (1967) makes any detailed study of the anatomical and functional results of episiotomy. He found a 39 per cent incidence of dyspareunia and a six per cent incidence of severe and disabling coital difficulties.

Aim

This present study is directed to investigate both the postpartum perineal discomfort and the coital problems of primigravidae following vaginal delivery with episiotomy and to compare perineal skin sutured with either non-absorbable (silk) or absorbable ('Dexon') sutures, with the silk sutures being interrupted and the 'Dexon' suture subcuticular.

Method

One hundred and forty primigravidae were admitted to the study. Each had a spontaneous vertex delivery and mediolateral episiotomy performed by the delivering midwife. No patient who had an extended episiotomy or any additional lacerations was included.

The episiotomy was repaired by one of the four senior

Table 1. Mean daily analgesic requirement (standard deviations in brackets).

	Number of patients	Mean number of Distalgesic tablets per patient per day postpartum					
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6
Silk group	70	3.42 (2.83)	5.80 (2.89)	5.31 (2.66)	5.85 (3.23)	5.62 (2.94)	2.61 (2.34)
'Dexon' group	70	2.82 (2.93)	5.77 (2.63)	4.34 (2.93)	3.93 (3.34)	3.38 (3.28)	2.28 (2.06)
Epidural group	56	4.25 (3.58)	7.58 (3.45)	6.27 (3.58)	5.70 (2.70)	5.62 (2.69)	2.59 (1.96)
Non-epidural group	84	2.37 (2.41)	4.58 (2.38)	3.89 (3.52)	4.36 (3.26)	3.75 (2.49)	2.36 (2.10)

Table 2. Relationship between age and dyspareunia—both groups (percentages in brackets).

Four-month coital assessment	Age			
	<20	20 to 29	30 to 40	Total
No pain at all	4(15)	9(16)	2(11)	15
Pain for <4 weeks after initial coitus	9(35)	29(52)	2(11)	40
Pain for <8 weeks after initial coitus	8(31)	14(25)	8(45)	30
Pain for >8 weeks after initial coitus	5(19)	4(7)	6(33)	15
Total	26	56	18	100

house officers within one hour of delivery. In all cases a continuous chromic catgut suture (Ethicon 761) was used for the vaginal epithelium, interrupted sutures of the same material for the muscle layers, and the patient was randomly allocated to have her perineal skin repaired with either interrupted black silk sutures (Ethicon 562) or a subcuticular 'Dexon' suture (Davis and Geck 6441-78). The black silk sutures were removed on the fifth postpartum day and the 'Dexon' left to be absorbed spontaneously.

Postpartum perineal pain was assessed by monitoring the patients' analgesic requirements. 'Distalgesic' tablets (dextropropoxyphene hydrochloride 32.5 mg and paracetamol 325 mg) were given to patients on request. At each request the nurse asked what the analgesia was needed for, and the numbers given specifically for perineal pain, as opposed to breast discomfort or 'after pains', were noted.

Four months after delivery each patient was sent a questionnaire about the delay in resumption of coitus, any dyspareunia experienced, and its severity and duration. Details of the type of analgesia in labour and the patient's age were requested, but apart from the identification of the suture material used, there was no means of identifying the patient. This gave the patient the freedom of anonymity in her answers.

Results

Eighty-five per cent of the 140 primigravidae took analgesics in the early puerperium because of perineal pain. The daily analgesic consumption of all patients is recorded in Table 1. This table shows first that patients whose perineal skin was sutured with 'Dexon' had significantly less perineal pain on the third, fourth, and fifth postnatal days ($p < 0.001$; Student's *t*-test). Secondly, patients who had epidural analgesia in labour suffered significantly more pain during the first five postnatal days ($p < 0.001$; Student's *t*-test).

One hundred patients (71 per cent) returned the postal questionnaire. Results relating to maternal age are shown in Table 2. There was a significantly greater number of patients in the 30- to 40-year age group who had dyspareunia lasting for longer than four weeks ($p < 0.001$; chi squared).

The relationship between timing of first coitus and the presence and persistence of dyspareunia assessed at four months after delivery for the 'Dexon' and silk sutured groups is shown in Tables 3 and 4. It is apparent that there is no association between the timing of first coitus and the presence or persistence of dyspareunia. Significantly more of the silk sutured group had no pain or dyspareunia lasting less than eight weeks ($p < 0.001$ chi squared) and significantly more of the Dexon sutured group had dyspareunia lasting more than eight weeks ($p < 0.001$; chi squared).

Discussion

In 1958, among primigravidae who had their confinements in hospital, the incidence of episiotomy was 21 per cent (Butler and Bonham, 1963). In 1978, in Leeds Maternity Hospital, the incidence of episiotomy among primigravidae was 91 per cent. With this high episiotomy rate common in British maternity hospitals, it is important to reduce morbidity, and a survey of the postoperative morbidity is necessary. The fact that 85 per cent of the patients studied had to take regular analgesics for perineal pain and that there was an 85 per cent incidence of dyspareunia shows a considerable

problem with both short-term and long-term morbidity following episiotomy.

Suturing the perineal skin with a subcuticular 'Dexon' stitch gave a significant reduction in perineal pain. This superiority of 'Dexon' was also found by Livingstone and colleagues (1974) and Beard and colleagues (1974) who compared subcuticular 'Dexon' with subcuticular catgut sutures. 'Dexon' evokes less inflammatory reaction than either silk or catgut (Anscombe *et al.*, 1970) and therefore causes less perineal oedema and less wound tension (Daume, 1972). The use of subcuticular suturing has obvious advantages over interrupted sutures as the patient does not have to sit on a row of knots. The finding that patients who had epidural analgesia in labour suffered more perineal discomfort in the first five postnatal days was unexpected and a search of the literature showed that Crawford (1972) had made a similar observation. The reason for this greater analgesic requirement is probably that these patients were not 'acclimatized' to perineal pain during labour and delivery. There is no evidence of postepidural hyperalgesia in patients having abdominal surgery under epidural analgesia.

Only 51 per cent of our patients had attempted coitus before six weeks after delivery; in Beischer's series the figure was 53 per cent, so the routine six-week postnatal examination is not a good time for assessment of the functional results of episiotomy. Although the anatomical results may be inspected at the postnatal examination, Beischer showed that there was very little correlation between the anatomical and functional results of episiotomy repair. Prolonged and tactful

follow-up is necessary to detect the most severe and troublesome dyspareunia and review of the postnatal patient at three and six months seems to be indicated.

Although 85 per cent of patients reported dyspareunia, this lasted for over four weeks in only 45 per cent compared with 50 per cent in Beischer's series, and the incidence of dyspareunia persisting for longer than eight weeks was 15 per cent compared with Beischer's figure of six per cent. The reason for this increased incidence of prolonged dyspareunia may be that in Beischer's study all the patients were sutured with either silk or catgut. 'Dexon' takes 60 to 90 days to be absorbed and at the time of initial coitus the suture material would still be holding the tissues, thus preventing painless stretching. Chromic catgut is digested within 20 to 25 days and would not give this problem.

Conclusion

In conclusion, this study shows the short-term advantage of using a subcuticular suture in episiotomy repair. Although 'Dexon' may cause less immediate inflammatory reaction than either silk or catgut, the delayed absorption of 'Dexon' leads to increased dyspareunia and 'Dexon' sutures should be removed on the fifth postnatal day to avoid this problem. Particular care should be taken with the elderly primigravida who is in even greater risk of developing dyspareunia. The high incidence of postepisiotomy morbidity revealed in this study indicates the need for further and more prolonged study of the indications for and repair of episiotomy in obstetric practice.

Table 3. Dyspareunia and delay in initial coitus — 'Dexon' group (percentages in brackets).

Four-month coital assessment	Weeks postpartum before initial coitus								Total
	2	3	4	5	6	7	8	12	
No pain at all	0	1	1	0	2	1	1	0	6(11)
Pain for <4 weeks after initial coitus	1	2	2	3	3	2	2	0	15(27)
Pain for <8 weeks after initial coitus	1	2	3	5	5	6	2	1	25(45)
Pain for >8 weeks after initial coitus	0	1	1	2	1	2	2	0	9(17)
Total	2(3)	6(11)	7(13)	10(18)	11(20)	11(20)	7(13)	1(2)	55

Table 4. Dyspareunia and delay in initial coitus — silk group (percentages in brackets).

Four-month coital assessment	Weeks postpartum before initial coitus								Total
	2	3	4	5	6	7	8	12	
No pain at all	2	1	1	1	1	2	1	0	9(21)
Pain for <4 weeks after initial coitus	2	3	2	1	3	1	2	1	15(33)
Pain for <8 weeks after initial coitus	1	3	2	3	2	2	2	0	15(33)
Pain for >8 weeks after initial coitus	0	1	1	2	1	1	0	0	6(13)
Total	5(11)	8(18)	6(13)	7(16)	7(16)	6(13)	5(11)	1(2)	45

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Acknowledgements

We are grateful to Mr R. R. MacDonald and Mr K. R. Peel, Consultant Obstetricians at Leeds Maternity Hospital and Mr A. C. Crompton, Consultant Obstetrician at St James's University Hospital, Leeds, for permission to study their patients and of course to the patients who willingly co-operated in the study.

Urogenital infections

Detailed history, physical examination, laboratory, and follow-up data were obtained from 821 patients presenting to a primary care clinic over an 18-month period with the symptoms of vaginal infection or urinary tract infection (UTI). Information useful in deciding when to perform a vaginal examination, when to obtain various types of cultures, and when to perform microscopic examination of a saline suspension or Gram stain is presented. Of particular interest were the findings that patients with dysuria more commonly have vaginitis than UTI, the superiority of a saline examination to other means of diagnosing yeast vaginitis, and the rarity of a positive trichomonas preparation when the vaginal discharge had a curd-like appearance.

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