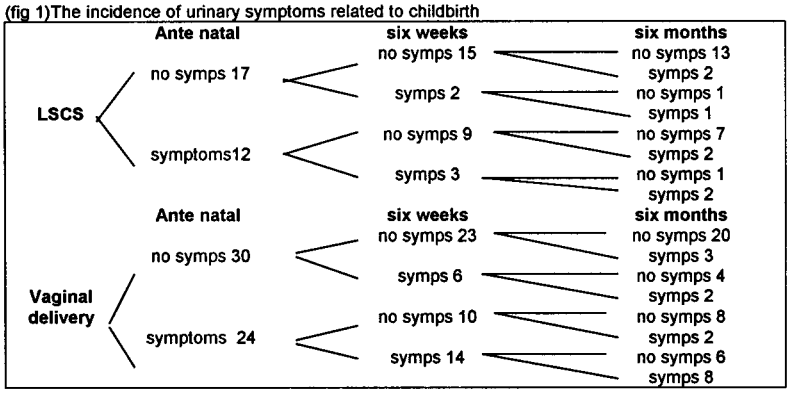
(fig 1)The incidence of urinary symptoms related to childbirth



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A PROSPECTIVE OBSERVATIONAL STUDY OF THE OUTCOME FOLLOWING DELAYED PRIMARY REPAIR OF OBSTETRIC GENITAL FISTULA AT A FISTULA HOSPITAL

Introduction: The Fistula Hospital in Ethiopia was established by Drs. Reginald and Catherine Hamlin in 1975. Over 15,000 obstetric fistula have been repaired since this unit opened (1,2). Obstetric genital fistula is still a major problem in the third world with 50,000-100,000 new cases each year. The most common risk factors include first delivery and prolonged labour (1,2). Despite the high anatomic success rates reported following delayed primary repair, persistent urinary and faecal incontinence remains a significant problem (3,4).

Aims: To evaluate: 1) epidemiological factors associated with the development of obstetric genitourinary fistula, 2) incidence of persistent postoperative urinary and faecal incontinence and 3) urodynamic findings following fistula repair.

Methods: Fifty nine consecutive women were recruited from the Fistula Hospital in Ethiopia, following delayed primary repair of obstetric genitourinary fistula. A detailed obstetric, faecal and urinary questionnaire was completed and the severity of incontinence symptoms graded using a validated scoring system. The case-notes for each patient were reviewed and preoperative details regarding the site, size and type of fistula, degree of bladder neck mobility and scarring of the vaginal wall was recorded. Postoperative clinical findings were also noted. All women with persistent urinary incontinence following fistula closure underwent urodynamic assessment. Urodynamic diagnosis was evaluated according to ICS criteria.

Results: The mean age was 24 years (range 16-52). 42(71%) followed first delivery and 17(29%) following subsequent delivery. The mean duration of labour was 4 days (range 1-9). 32(53%) presented for treatment within one year. Of the remaining 27 women 11(18%) presented within 12-24 months and 16(29%) more then two years following delivery. 45(76%) women had an isolated vesicovaginal fistula (VVF) and 14(24%) a

combined VVF and rectovaginal fistula (RVF). The majority 48(82%) of these were located in the upper vagina. None of the patients had an isolated RVF.

The mean fistula diameter was 2.5 (0.5-7cm). All 59 women underwent vaginal fistula repair under regional anaesthesia. In 56(95%) a Martius graft was performed in addition to delayed primary fistula closure and the remaining 3(5%) women had an appositional repair alone. All of the latter group had a VVF < 0.5cm in diameter. The mean follow-up time for this study was 33 months (range 1-440). Of the 59 women who had undergone fistula repair, 34(58%) complained of persistent urinary incontinence and 23(39%) had altered faecal continence at postoperative follow-up. Of these 15(25%) had mixed urinary and faecal incontinence symptoms. The mean faecal score was 7 (range 2-16). 34 women with persistent postoperative urinary incontinence underwent urodynamic assessment (UDS)(Table 1). Of these 17(50%) had stress urinary incontinence (GSI), 2(6%) detrusor instability and 15(44%) mixed incontinence. In addition 32(94%) had bladder hypersensitivity and 5(15%) voiding difficulty. 29 (85%) of these were noted to have a fixed bladder neck at urodynamic assessment.

Table 1: UDS (n=34)	**GSI n=17**	**Mixed n=17**
Voiding cystometry		
First desire	110(0-300)	76(40-200)
Strong desire	145(0-300)	114(50-270)
Capacity	222(125-300)	193(100-300)
Pressure rise on filling	6.6(2-12)	40(13-80)
Uroflowmetry	**n =12**	**n =3**
Flow rate	11(3-29)	18(6-20)
Residual	18(0-80)	65(0-200)

Conclusion: This study demonstrates the high anatomical success rates which can be achieved in specialised fistula units. The functional outcome remains poor however, with high rates of persistent faecal and urinary incontinence following fistula surgery. While urodynamic assessment has identified a significant number of women with persistent stress urinary incontinence who require further continence surgery, the mechanism of faecal incontinence in this group remains poorly understood and limited treatment is currently available. Further research is required to evaluate the underlying mechanisms leading to persistent faecal incontinence in these women in order to develop appropriate treatment strategies to address this tragic problem.

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VOLUNTARY ABDOMINAL EXERCISE AND PELVIC FLOOR MUSCLE ACTIVITY.

Aim of study In cases of urinary incontinence it is generally advised that pelvic floor (PF) muscle exercise be carried out without abdominal or hip muscle activity. Yet it is known that abdominal muscle activity normally accompanies a PF muscle contraction (1) and preliminary evidence exists that PF muscle activity occurs in response to specific abdominal exercises (2). This study aimed to confirm those preliminary findings.