

Ongoing incontinence after VVF repair: The Hamlin Fistula Ethiopia experience

By team HFE
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Overview

- Fistula rates in Ethiopia have declined in recent years
- Rates of obstetric fistula as low as 0.6 per 1,000
- Women suffering from persistent urinary incontinence range from 7 to 40 percent

Overview

- This “continence gap” is gaining attention as fistula rates in Ethiopia have declined over the past several years
- Exacerbation impact on quality of life and care providers were very distraught, frustrated) [*Jacobson LE, Marye MA et al, 2020*]

Overview

Different techniques were in use

- Vaginal pubococcygeal slings
- **Autologous fascia slings**
- New Urethra from urinary bladder/labial skin
- Bulking agents
- Urethral plugs
- Gracilis flap
- Urinary diversions

Autologous fascial sling

- Results for fascia slings were different in different studies
- Popular technique at Hamlin
- Result from a retrospective cohort of 46 patients (work in progress) showed:
 - Cure (dry with no retention or urge symptoms on discharge) of 28%
 - Another 28 % had urinary retention/significant residual urine
 - Patients with urge symptoms were 7 %

The search for new technique

The need for new surgical approach

- Higher number of ongoing incontinence
- With repeated fistula repairs resulting in extensive scarring
- Failed previous anti-incontinence operations
- Cystoscopic examinations revealing a scarred, stiff, "pipe like" bladder neck
- To reduce the number of diversion operations to a minimum

The search for

FEMALE BLADDER NECK RECONSTRUCTION

Anatomic and Physiologic Approach [GOLDENBERG SL et al, 1985]

A “wrap-flap” technique with omental support to reconstitute the normal anatomy and physiology of the bladder neck.

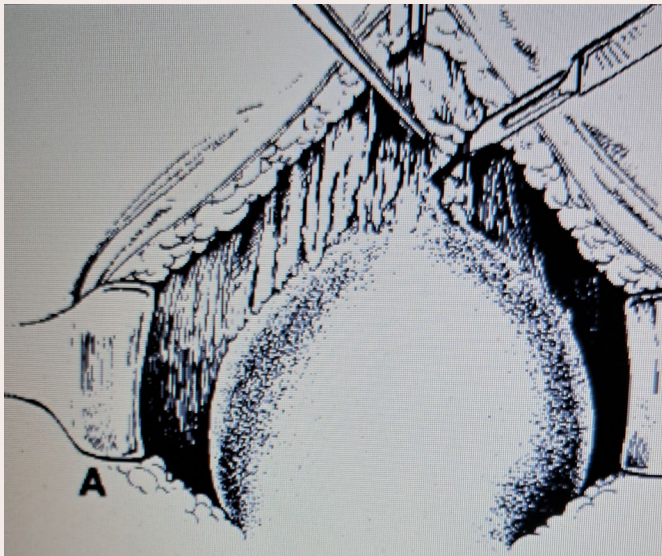
- *The assumption was that the base plate and detrusor loops of the middle and deep muscle layers are pivotal for continence*

The search for

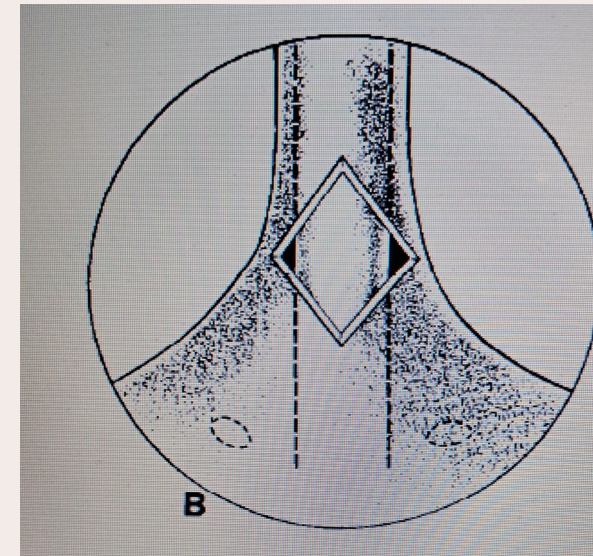
- First operation done on a woman who underwent a failed anterior vaginal repair for urinary incontinence with eight further unsuccessful procedures in 20 years

Figure 1 (A-H)

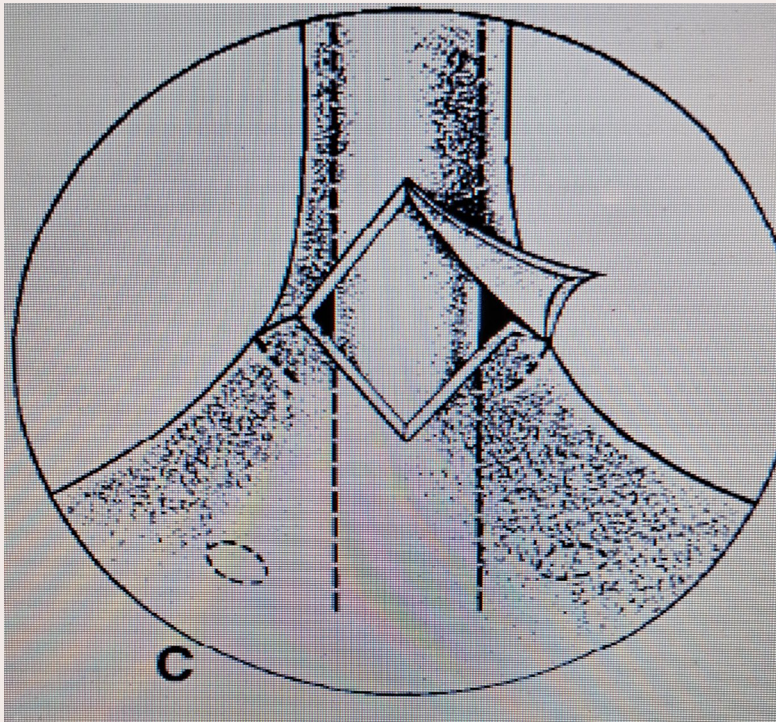
(A) Mobilization of bladder neck and urethra.



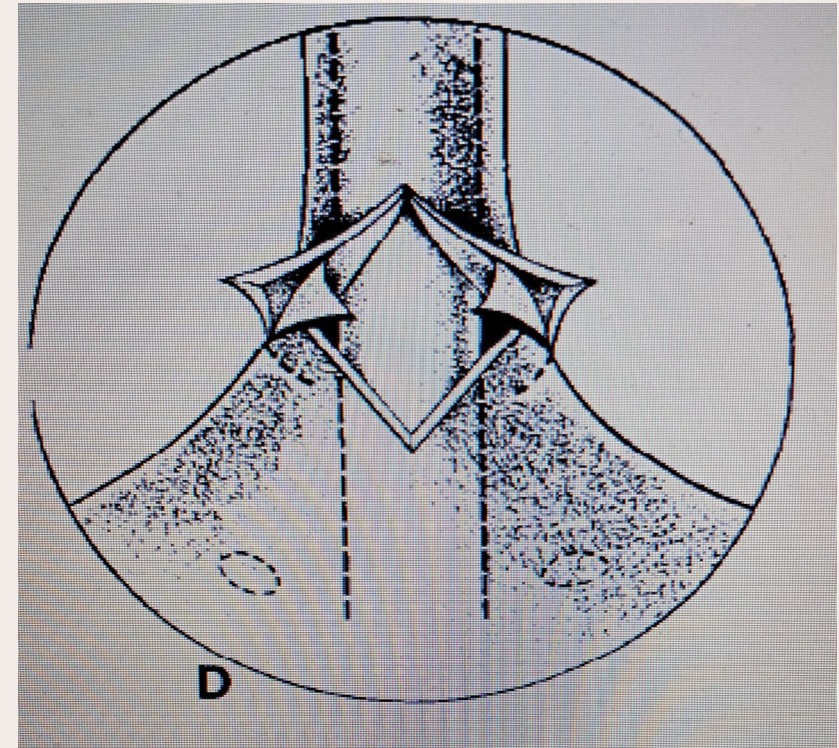
B. Excision of diamond-shaped wedge of tissue.



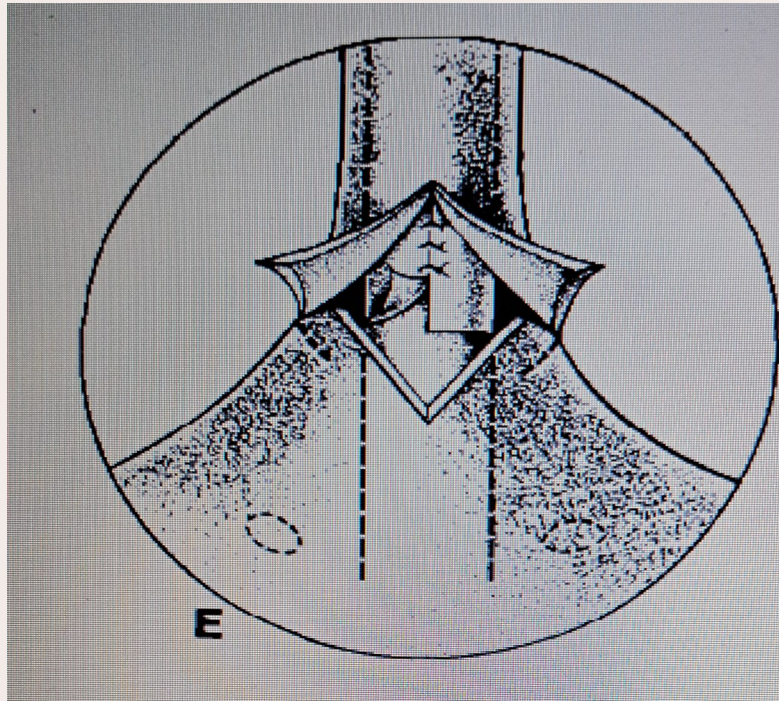
(C) Posterolateral incisions.



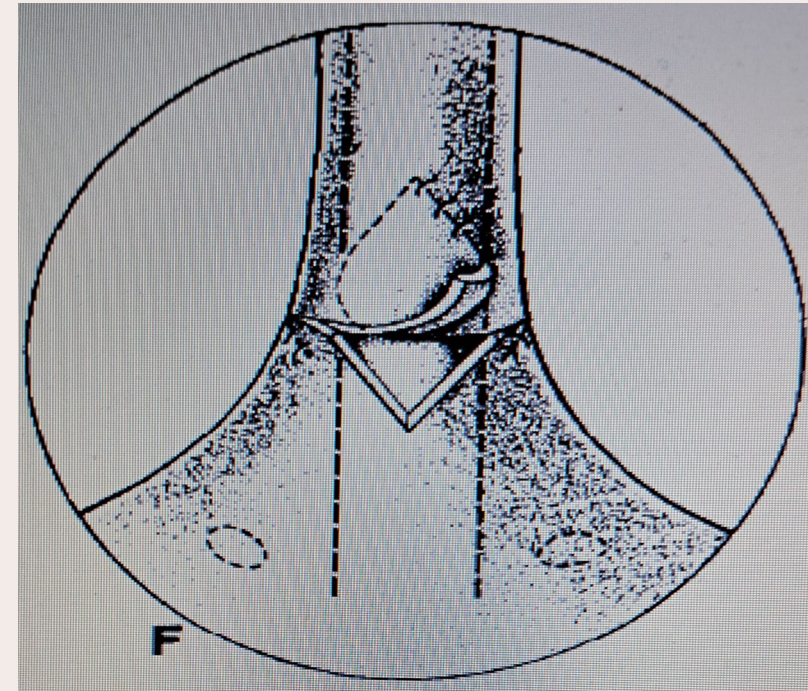
(D) Mucosa separated from seromuscular flaps



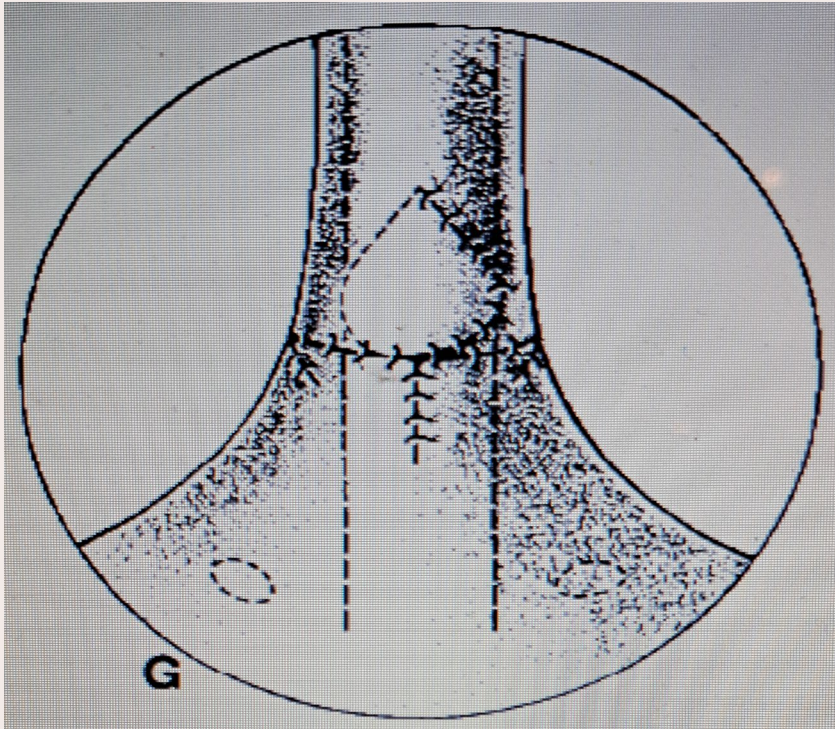
(E) Reapproximation of mucosa over 14-F catheter.



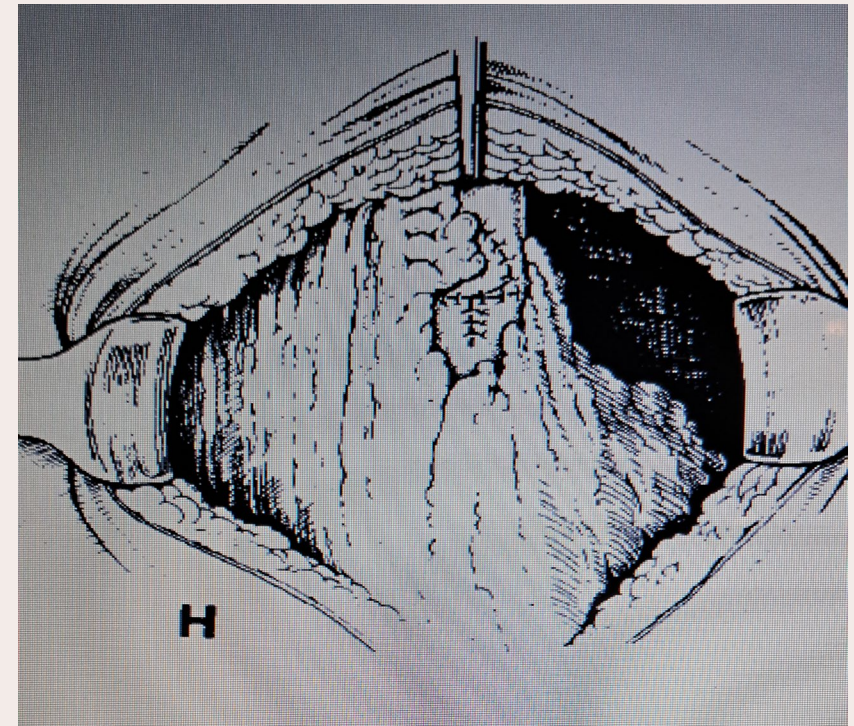
(F) Overlapping closure of flaps.



(G) Completed bladder closure



(H) Omental wrap.



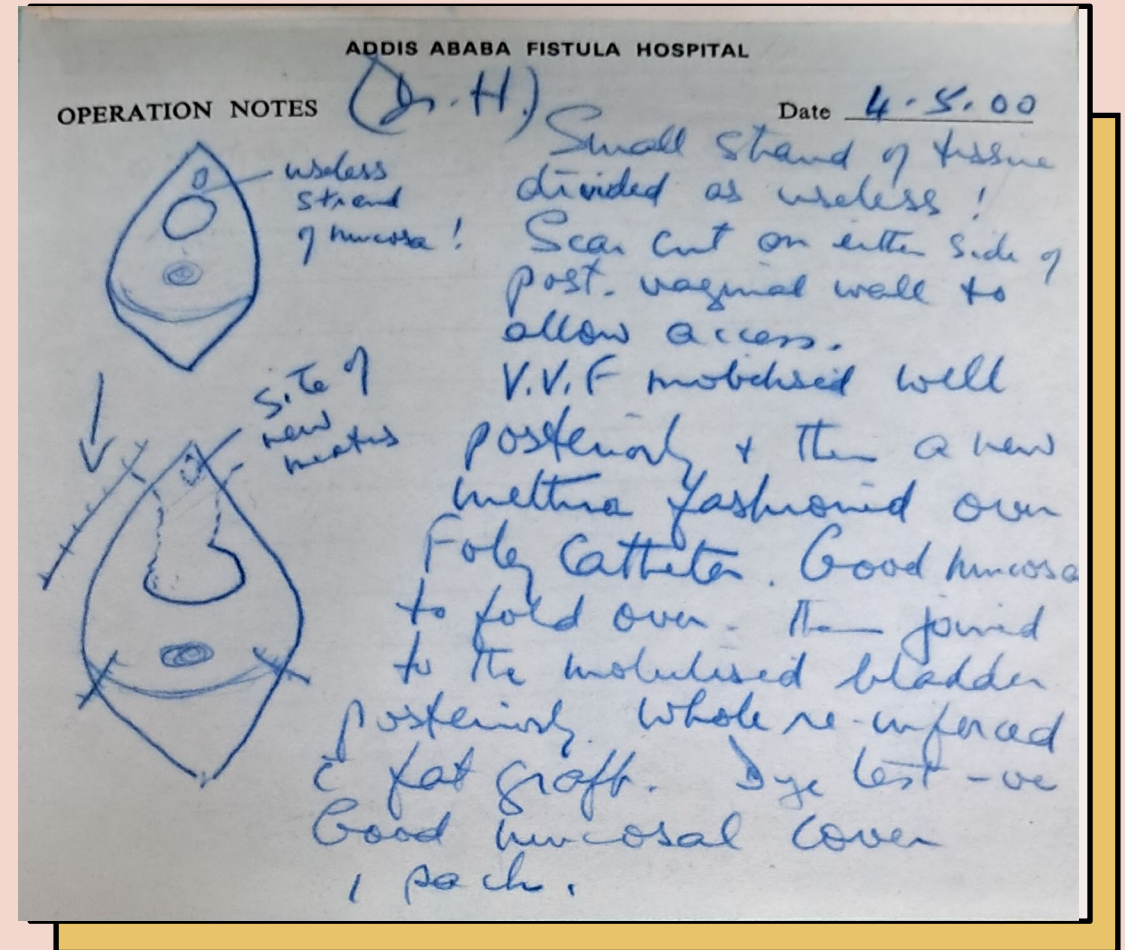
The search for ...

- The patient had an uncomplicated postoperative course and is continent of urine at fifty four months' follow-up.
- Subsequently, they used this procedure in 10 incontinent females with mean follow-up of thirty months (range 6-54)
- All patients were infection-free with relatively normal voiding function, low residual urines, and continence.
- Recommend it prior to the implantation of prosthetic devices

Our cases

Case 1

- First admitted 24 years back after having a failed VVF repair
- Urethral reconstruction made, remained wet



Our cases

Urethrolysis ,omental graft and rectus facial sling done
Stayed on plug for many years till 2018

Examination before current surgery:

- Transverse suprapubic scar
- Short anterior vagina
- Continuous leakage from urethra

Our cases ...

Cystoscopy

- Urethral length 1.5 Cm
- Distorted, stiff, widely open bladder neck
- Right ureter close to the bladder neck

UDS

- Capacity 380 ml
- Good compliance
- Continuous leak from the urethra

Our cases....

Surgery on 11/01/24

- Retropubic mobilization of bladder neck and urethra
- Refashioning bladder neck and proximal urethra
- Fascia lata sling (16x3 cm) and omental patch

Post operation course

- Uncomplicated
- Catheter removed after three weeks resulting in nearly complete retention
- On her fourth day on free drainage

Our cases...

Two more patients

- Similar preoperative finding and same surgical procedure
- Urinary retention after three weeks (on free drainage)

Fourth patient

- After avulsion of pubic bone and urethral injury, less scarring
- Dry after three weeks, no significant residual urine
- Discharged with an appointment to return after one month

Our cases....

Fifth patient

- Two fistula repairs and an anti-incontinence surgery
- Has persistent incontinence after three weeks

Sixth patient

- Repeated fistula repairs
- Scared short vagina
- Found to have a purulent collection in the upper vagina
- Developed abdominal wound dehiscence, reoperated and is improving

Our cases....

Seventh patient

- Patient after repeated VVF repair
- Scarred vagina
- Continuous leakage from urethra
- Scarred stenosed proximal urethra scarred, stiff, “keyhole” bladder neck
- Mobilization of urethra, buccal mucosal graft and fascial sling done
- Graft did not hold

Summary

- Extensive scarring from repeated surgeries makes treatment of ongoing incontinence difficult
- No single solution, each case needs individualized approach
- All options should be on the table, possibly using an algorithm
- There is a need for a concerted effort

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