LOW TECH APPROACH TO SIMPLE VESICOVAGINAL FISTULAS

Dr A.T. Lassey, FRCOG, FWACS
Senior Lecturer
Dept. of Obstetrics & Gynecology
UGMS
Ghana

The scarcity of resources and the prevalence of vesico-vaginal fistulas in developing countries have necessitated a low tech approach to the care of these patients.

Developing countries cannot afford the degree of sophistication available in hospitals in the West.

A good deal can and is being done for fistula patients using basic facilities.
Location – West Africa, along Gulf of Guinea
Land mass - 92,000 sq. miles
Population - 20 million
Rural population – 70%
Main Occupation – Agriculture
GPD (Gross Domestic Product) is US$390.00 per annum
North South Divide in Ghana

- There is a big North-South divide in terms of health facilities and personnel, infrastructure and standard of living with the south having most facilities.
- This presentation is based on the approach to fistula care in a hospital in rural northern Ghana, the Baptist Medical Centre.
The BAPTIST MEDICAL CENTRE

- Forty-three (43) bedded District General Hospital in rural northern Ghana
- Built in 1957 by the Baptist Mission
- Founder and Pioneer- the late Dr George Faile II, an American Baptist Missionary
- Only hospital within a 50-mile radius – caters for all categories of patients.

- BMC has been offering compassionate care for fistula patients.
- The late Dr Tom Elkins did most of his fistula work in Ghana at this hospital
- The care is subsidized by the Baptist Mission International and the Ghana Health Service
- Fistula patients have to compete with other surgical conditions for the limited theatre time and space.
STRUCTURE

- A simple hospital design built from essentially local materials.
- Outpatients’ department
- Basic laboratory
- An open perioperative ward with a central nurses’ station
- Two theatres
LIMITATIONS OF THE BMC

• No X-ray facilities
• No blood biochemistry service
• No microbiology service for C/S

LIMITATIONS

• No anesthetist
• No facilities for cystoscopy
• No catering facilities
• Low tech approach to the care of fistula patients is therefore the only option available if these patients are to receive any care.
OUTPATIENT CARE

The outpatients’ department

- A walk-in clinic with no referral system. Most of the patients are self-referrals
- Modestly furnished for basic clinical assessment
- Has an examination couche with stirrups for lithotomy positioning.
- **Diagnosis of a simple fistula - based on**
  - History
  - Clinical & Sims’s speculum examinations
  - ± Methylene blue dye testing.
Examination under anesthesia – rarely used.

Its use suggests – complex fistula

If the patient is malnourished or anemic

Investigate – nutritional history, stool/urine microscopy to rule out parasitic infestations like schistosomiasis and worms.

Offer practical nutritional advice.

Prescribe iron, folic acid and vitamin tablets.
INVESTIGATIONS

- Limited. Include:
  - Hemoglobin or hematocrit
  - Sickling test
  - Blood grouping and save serum
- Generally, no other investigations are done
- Most patients are admitted on the day of surgery

ANAESTHESIA

- Spinal anaesthesia – safest, cheapest and most cost-effective anesthesia in low tech settings
- The availability of an anesthetist (nurse or doctor) to manage the anaesthesia - important as it improves patient safety.
- No anesthetist available – chronic shortage.
- Spinal - sited by the surgeon with monitoring by a nurse with no formal anesthetic training.
Surgeon siting the spinal

The basic monitoring equipments

- Pulse oximeter
- Manual sphygmomanometer

For the spinal

- 2-3 mls of 0.5% Bupivacaine
- 10mg prophylactic I.M. Ephedrine to prevent hypotension
Intravenous fluids used - produced directly by the hospital, packaged into glass bottles that are re-usable.

Two litres of supplemental oxygen is administered by face mask. If needed Ketamine, Pethidine and Diazepam are used to extend the anaesthesia.

The usual airway devices available are an Ambu bag and a laryngeal mask.

**Surgery**

- The vaginal route - preferred route of surgery

- A basic operating table with the facility for exaggerated lithotomy position is available

- Shoulder supports are not available. We improvise by using a bed sheet draped round the shoulders and tied to the stirrups.
Shoulder Supports

Figure 10: Exaggerated lithotomy position for fistula repair. The patient is positioned at 35 – 45 degrees, head down position, with the use of shoulder supports and the buttocks pulled over the edge of the table. (Worldwide Fistula Fund, used by permission).

Improvised shoulder support
Other equipments/supplies –

- A suction machine
- A self-retaining weighted vaginal speculum
- Standard surgical instrument set including angled surgical scissors.
- The suture material - chromic catgut or Vicryl, (No. 2/0 and 0)

Some useful instruments
Repair may be single or two-layered without tension after fistula dissection and mobilisation.

A single dose prophylactic antibiotic

At the end of the repair, urethral or suprapubic catheter is inserted for continuous bladder drainage for two weeks to allow healing without tension.

1st Day Postop.
3rd Day Postop.

4th Day Postop.
Postoperatively,
Deep breathing and leg exercises are taught and encouraged.
- Mobilise on the 3rd postoperative day.
- Remove catheter after two weeks if dry.
- Counseling at the time of leaving hospital - explanation of the cause of the fistula; sexual abstinence for three months; and elective caesarean section in the future.

Low and High Tech Approaches

Low tech
- History
- Clinical Exam
- Sickling
- Hb or Hematocrit
- Blood grouping & S/S
- ±Dye test

High tech
- History
- Clinical exam
- Full blood count
- Sickling
- Blood grouping & S/S
- BUE & Cr
- MSU
Low and High Tech Approaches

- **Low tech**
  - Basic general surgical instruments adequate
  - Spinal anesthesia & surgery
  - Cost per fistula repair at the BMC – about U$ 50.00 to the patient

- **High tech**
  - ±Dye test
  - Cystoscopy
  - Intravenous urogram
  - Anesthesia & Surgery
  - Cost per fistula repair – about three times.

- Ghana has no functional National Health Insurance Scheme yet in place.
- Patients for now, still have to pay directly for their care at the point of receiving the care.
- Fistula patients are poor and destitute.
- Yet have to bear the cost of their care
• **US$50.00** - Out of the reach of many fistula patients.

• Repair of obstetric fistulas – should be free of charge to the patient as a matter of responsibility by the state.

• Obstetric fistula – should be considered a failure of the health care delivery system of the country and the responsibility of the state.

• Simple fistulas that present within days to a few weeks after delivery can be managed by prolonged catheterisation for 4-6 weeks. Spontaneous healing of the fistula can be anticipated in 50–60% of cases. Some experts have advocated early repair in some selected cases instead of the traditional 3-4 months interval repair.

• **Prevention of fistulas**
If a patient presents in obstructed labor, the bladder can be catheterized for a week as prophylaxis against the development of a fistula.
- Primary prevention
  - Universal and affordable prenatal, delivery and postnatal care.
  - Availability of effective, acceptable and accessible emergency obstetric services is necessary to prevent or promptly relieve obstructed labor at the first referral centre.
Rehabilitation/Reintegration

- These patients are usually deserted by their husbands and families. The ideal care would involve providing them with vocational skills to enable them earn a living.

- Postoperative review - done at two and six weeks after discharge from hospital. Our cure rate is about 82% dryness at 6 weeks.

- Long term follow-up – virtually non-existent

Happy patient and carers
In summary

The management strategy of obstetric fistulas in developing countries is the low tech approach involving less resources but capable of delivering a reasonable quality of care to these patients.

Thank you