POST-OPERATIVE CARE: NIGERIA

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RELEVANCE TO MEETING

BEFORE NOW, NEED FOR:
• Compilation of Credible Incidence & Prevalence Statistics
• Classification of Fistulae
• Development of Preoperative & Operative Treatment Protocols

QUESTIONS:
• What is the current state of postoperative care of Obstetric Fistula?
• How satisfactory is this?
• What Research Questions are there?
OBJECTIVES

AIM:
Use Post-operative Treatment of Obstetric Fistula in Nigeria to illustrate adequacy or otherwise of this aspect of care.

APPROACH:
• Present National Context,
  – Relevant Socio-Economic Profile
  – Historic & Current Perspective on Fistula Control
• Current State of Postoperative Care
• Raise Research Questions

BIBLIOGRAPHY

NIGERIA

- Most populous country in Africa (1-in-5 African is Nigeria).
- Endowed with huge human and natural resources
- High Prevalence of Poverty
- Has Maternal Mortality Ratio (MMR) of 1,100 per 100,000 live births
- For each death 20 other women develop morbidities.

OBSTETRIC FISTULA: PREVALENCE IN NIGERIA

- Estimated 250,000 obstetric fistula patients, in 1993
- 800,000 cases by 2002, with preponderance in northern Nigeria
REASONS FOR INCREASED PREVALENCE

• Worsening MMR (3,200 per 100,000 in some places)
• Fistula repair is new to local communities
• At rate of 2,000 repairs yearly, will take 200-400 years to repair existing cases

CHRONOLOGY OF FISTULA CARE IN NIGERIA

• Early 1960ies: Surgical Repair in Teaching Hospitals
• Late 1970ies: elucidation of social, cultural and economic determinants of obstetric fistula (Began strategies for prevention)
• Late 1980ies: concept of “Fistula Centers” emerged
• Late 1980ies: emergence of Non-governmental organizations and partnerships to control fistula
NIGERIAN FISTULA REPAIR: CURRENT APPROACHES

• Teaching Hospitals

• Fistula Centers

• Fistula Campaign

UNFPA/ENGENDERHEALTH REVIEW OF FISTULA FACILITIES

• 2,286 fistula repairs done annually by 11 leading fistula Hospitals in Nigeria

• 33 surgeons currently identified with fistula repair in the country

• 6.8% (155) of all fistula repairs are performed in the Teaching Hospitals. Implies each of the 25 Teaching hospital surgeons performs average of 6 repairs annually

• 93.2% (2,131) of repairs done in Fistula Centers, with each of the 8 surgeons in them performing an annual average of 266 repairs.
UNFPA/ENGENDERHEALTH
REVIEW OF FISTULA
FACILITIES Cont...

- 57.5% of all the repairs done in North-west zone, in 3 Fistula centers and 3 Teaching Hospitals located there.
- No report of fistula activities from North-east and South-east zones.
- Treatment of fistula patients in the Fistula Centers is essentially free of user-charges.
- But cost of fistula repair in Teaching hospitals average 166USD, ranging from 90 to 250USD.

THE FISTULA CAMPAIGN
APPROACH

- Initiated by the UNFPA in February 2005.
- Assembled 12 volunteer fistula surgeons (including two each from UK and USA)
- Operated on patients in four Fistula Centers over a fortnight.
- 545 patients were treated, with 87.3% successes
UNFPA FISTULA CAMPAIGN SITES

GENERAL CONSIDERATIONS FOR FISTULA REPAIR

- Good preoperative preparation of patient for type of repair;
- Thorough fistula(e) assessment for optimal planning
- Good surgical skills for
  - appropriate selection of right technique for type of fistula and its successful implementation
- Good postoperative management.
PREPARATION FOR SURGERY

- Thorough clinical examination (including now optional Examination Under Anaesthesia)
- Most universal of laboratory investigations performed are:
  - Hemoglobin estimation and Urinalysis.
  - Others (in Teaching hospitals) are:
    - Serum Electrolytes,
    - Urea and Glucose estimations;
    - Renal function tests; Urine Microscopy,
    - Culture and Sensitivity
    - occasional Intravenous Urogram.
- Improvement of Patient’s:
  - general health,
  - nutrition and hygiene
  - administration of hematinics
  - topical application of petroleum Jelly (less available Zinc Oxide and Castor Oil cream).
- Interval before surgery:
  - Usually three-month
  - recent “early repair” approach advocated by Waaldijk

OPERATIVE CONSIDERATIONS

- Choice of anaesthesia
  - Depend on institutional protocol and preferences.
  - Teaching hospitals often use general anaesthesia, by
    Fistula Centers and Fistula Campaigns use spinal block given by the surgeon or his assistant.
- Operators are:
  - gynaecologists, and trained Residents and Medical officers.
  - Urologists and general Surgeons rarely involved, unless in procedures involving upper Urinary tract.
- Surgical methods and techniques in common use include:
  - Vaginal Surgery
    - Saucerization technique
    - Single-layered technique (using non-absorbable suture)
    - Flap-splitting technique
    - Urinary reconstruction
    - Graft use
      - Martius graft
      - Labial graft
  - Abdominal Surgery
    - Transperitoneal technique
    - Transvesical, extraperitoneal technique
  - Ureteric Surgery
    - Simple repair
    - Resection and anastomosis
    - Reimplantation
    - Transplantation
- Rarely performed include Combined Abdomino-Vaginal Repair and Colpoclesis.
POST-OPERATIVE Care: Marion Sims Principles

- “use of a block tin catheter for continuous drainage;
- bowed to be kept quiescent for 10-15 days;
- opium
- normal fluid; and
- perineum irrigation”

CATEGORIZATION OF POST-OPERATIVE PERIOD

- Early postoperative care (catheterization period)
- Late post-operative care (post-cauterization period)
- Care of other complications co-existing with fistula
EARLY CARE: Catheterization

- **Site:**
  - Transurethrally in most cases.
  - Suprapublic in Urethral reconstruction & Transabdominal fistula repair

- **Type:**
  - “three-way” Foley’s catheter, preferred but scarce & expensive
  - “two-way” Foley’s most commonly used.

- **Retention:**
  - By inflated balloon.
  - Stitch to Labia (InJuxta-Urethral, Large fistulae or fistulae with Circumferential tissue loss),

- **Duration of catheterization:**
  - 14 days a primary fistula repair
  - Extension of up to additional 14 days if:
    - urethral reconstruction or bladder-neck repair was performed or
    - postoperative leakage was incurred.

- **Drainage Connection:**
  - Closed urine bags usually
  - Open receptacles (relative inexpensiveness)

EARLY CARE Cont…

- **Vaginal Pack:**
  - Used as tamponade
  - Removed within 48 hours.

- **Pain Relief:**
  - Narcotics (Pethidine or Morphine)
    - Given six-hourly intervals for 24 hours
    - then paracetamol, 1gm thrice daily for another two days.
  - Extended for up to 48 hours for patients who had abdominal repair
**EARLY CARE Cont…**

- **Fluid Intake:**
  - Targets Urine output of at least 100ml per hour
  - Over 4000ml Daily (tropical environment with daily insensible fluid loss of about 2000 ml)
  - Intravenous infusion for the first 24 to 48 hours, depending on when her resumed oral fluid intake can meet this requirement.

**Urine Output Monitoring:**
- Performed:
  - hourly or
  - 2-4 hourly intervals.
- Heavy Blood Stains or Clots:
  - Increased intravenous or oral fluid administration until the urine colour clears.
  - Persistent passage of clots warrants irrigation of the bladder with citrated solution.
- If drainage ceases patient must be promptly examined to exclude:
  - external compression of catheter;
  - Catheter kinks;
  - internal catheter blockage by clots or sediments;
  - ureteric obstruction (by ligation or edema); or
  - diminished renal urine secretion.
EARLY CARE Cont...

4. Likely Causes of Reduced Urine Outflow

<table>
<thead>
<tr>
<th>Features</th>
<th>Remedies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient lies in catheter or drainage tube</td>
<td>Re-directing drainage system to pass over patient’s thighs</td>
</tr>
<tr>
<td>Examination of entire drainage system for any acute angulations</td>
<td>Ensurance that no part of drainage system experiences curvature of less than 120°</td>
</tr>
<tr>
<td>External factors excluded without resumed urine flow</td>
<td>Using aseptic means, 50ml syringe is connected to catheter to ‘suck out’ suspected blockage. Failing which an initial few ml of saline is gently instilled to flush back obstruction. Once patency is restored, irrigation of bladder with saline or sodium citrate is completed</td>
</tr>
<tr>
<td>Surgical repair that involved Trigone or any of the ureters</td>
<td>Referral if no facilities for imaging and/or laparotomy</td>
</tr>
<tr>
<td>Loin pain</td>
<td>Renal tract imaging: ultrasonography, Intravenous Urogram, CT Scan or MRI (if available)</td>
</tr>
<tr>
<td>Vomiting</td>
<td>Strong clinical or radiologic suspicion mandates re-laparotomy to identify and free obstruction</td>
</tr>
<tr>
<td>Persistent fever</td>
<td>Prevention by routine catheterization of ureters if repair is proximal to them</td>
</tr>
<tr>
<td>Abdominal distention</td>
<td>(Increased creatinine)</td>
</tr>
<tr>
<td>(increased creatinine)</td>
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</tbody>
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5. Dissatisfied Renal Drainage of Urine

<table>
<thead>
<tr>
<th>Features</th>
<th>Remedies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Circulatory shock</td>
<td>Resuscitation</td>
</tr>
<tr>
<td>Increased Creatinine</td>
<td>Dialysis (or referral for one)</td>
</tr>
<tr>
<td>Increased Urea</td>
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Antimicrobial use:

- **Indication:**
  - None use
  - Prophylactic use
  - Urine culture-based use
  - Continued during the post-operative period.
  - Postoperative urine cultures repeated every 2-3 days interval, the last culture being of the tip of the removed catheter.

- **Types of antimicrobial in common use:**
  - Have broad spectrum
  - Relatively inexpensive
  - Include: Co-trimoxazole, Nitrofurantoin, Ampicillin and Ampiclox.
  - Parenteral preparations are used on the more intricate and extensive repairs or to address obvious sepsis.

- **Duration of antimicrobial therapy:**
  - Five to ten days period
  - Entire duration of catheterization
EARLY CARE Cont...

- **Patient Ambulation:**
  - Customized to patient’s situation,
  - As early as the day after repair
  - Later for patients with transabdominal repairs and urethral reconstructions

- **Vulvo-Vaginal Toileting:**
  - Nurses trained in fistula care employ irrigation techniques, using warm water or dilute antiseptic solution to clean vulva and perineum of blood stains, menstrual effluent, discharges and other debris each day and after bowel movements.

LATE POSTOPERATIVE CARE:

- **Outcome Determination:** At the expiration of the intended period of continuous bladder drainage, the catheter is removed and the patient examined to confirm outcome of repair. Following an interval of about two hours of removing the catheter, the vestibule is inspected for normality, stress incontinence or introital urine leakage.
  - If there is introital leakage, the patient is reassured and re-catheterization for a further 7-10 days is done.
  - If stress incontinence, the repair is regarded as partially successful and the patient is counseled and encouraged to void urine at hourly intervals until reviewed each day.
  - If no leak or stress incontinence, adjudged successful repairs, undergoes bladder training to improve the bladder capacity urine storage and voidance capability: they initially void urine at hourly intervals and progressively have the voidance interval extended until a convenient schedule to her is attained.

Patients with partial or complete success at repair, before discharge are given complete counseling on:

- Resumption of coitus after three months
- Contraceptives should be used unless pregnancy is desired
- When pregnant, antenatal care should be sought as early as possible and her detail history told to the clinic attendants.
- Subsequent deliveries should be by elective caesarean section but never at home.
- At this stage, the patient is discharged to her relatives if they are available and supportive, otherwise, she is transferred to the adjacent rehabilitation center for the requisite care.
LATE POSTOPERATIVE CARE Cont...

Rehabilitation: All the Nigerian Fistula Centers and few teaching hospitals like ABUTH have active rehabilitation Centers where fistula patients are given:

- elementary educational skills and
- trainings in cooking, tailoring, knitting, and other craftmaking that will empower them to earn subsistence when discharged home.
- Social workers attached to these centers finally assist each patient to link up and re-integrate with their immediate relatives and families. (Some achieve restoration to their husbands).

MANAGEMENT OF OTHER PROBLEMS THAT CO-EXISTED WITH FISTULA

a. Obstetric Palsy:
   - The foot-drop complicates over 15% of obstetric fistulae from obstructed labour,
   - most are unilateral but are occasionally bilateral
   - Only Teaching hospitals are adequately equipped with physiotherapy facilities for the necessary physical and electrotherapy.
   - Shoe calipers and foot elevators required for passive treatment of this problem are generally unavailable and unaffordable to fistula patients.
MANGEMENT OF OTHER PROBLEMS THAT CO-EXISTED WITH FISTULA Cont...

a. **Secondary Amenorrhea:**
   - Co-exists with up to 2/3 of fistula patients
   - Investigation and treatment of this is beyond the scope of the services of the Fistula Centers,
   - Teaching hospitals investigate for the following:
     - underlying causes:
     - hypothalamic dysfunction,
     - panhypopituitarism, or
     - uterine synaeschia.
   - Few of the patients are however able to afford the treatment.

MANGEMENT OF OTHER PROBLEMS THAT CO-EXISTED WITH FISTULA Cont...

a. **Sexual Dysfunction:**
   - Gynaetresia complicates about 10% of obstetric fistulae.
   - All the fistula treatment facilities are capable of treating with:
     - counseling and
     - use of lubricants during sexual intercourse (from inert Aqueous Jelly to Xylocaine cream).
CONCLUSION:

• Nigeria has one of the highest prevalences of obstetric fistulae in the World, and this will worsen unless her current obstetric standards of obstetric care are improved and the current rate of repair of fistulae overhauled.

• More Fistula Centers need to be established and more fistula campaigns organized to harness the under-utilized expertise that abound in the country' Teaching hospitals.

• The currently ‘high-tech’, expensive and unaffordable management protocol being offered at the Teaching hospitals to fistula patients need to be reviewed. Development of a minimum but safe standard of care that will give the multitude of fistula patients access to their care is urgently desirable.

• It is needless to emphasis that improved funding is necessary for the provision of resources that will make a difference in the lives of these indigent fistula patients who are hugely disadvantaged.

THANK YOU!