Obstetrical vaginal fistulae: surgical approach

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Geneva
Prevalence

- estimated: 2 mio women worldwide
- Africa, Asia, South America
  - Sub-saharan Africa: 2/1000 deliveries
Problem

- Abandoned from their families
- Co-morbidity
  - Infections
  - Bladder stones
  - Infertility
Aetiology

- Obstructed labour because of:
  - Early childbirth
  - Lack of accessibility of
    - skilled attendants
    - medical facilities
  - Lack of education
  - POVERTY
Definition 1

Tissue destruction secondary to the prolonged pressure of the head during obstructed labour (ischaemic lesion)
Definition 2

Tissue laceration during instrumental delivery, Caesarian section or Caesarian hysterectomy
Consequences

- Communication between the bladder/urethra and the vagina
- Communication between rectum and vagina
Simple fistula

- Non-fibrotic tissue
- Easy to access
Complex fistula

- Fibrotic tissue
- Loss of tissue
- Urethral involvement (transsection/destruction)
- Retracted bladder
- Aberrant tract
- Previous failed surgery
Tanguiesta case series

- Hospital northern Benin
- 9 urological missions since 1994
- Since 1996 specific visits for surgical fistula repair

- Obstetrical fistulae
  - N = 101
## Baseline data

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Age y (median, range)</td>
<td>27.9</td>
</tr>
<tr>
<td>(range)</td>
<td>(15-63)</td>
</tr>
<tr>
<td>Parity n (median, range)</td>
<td>2.9</td>
</tr>
<tr>
<td>[33 first delivery]</td>
<td>(1-11)</td>
</tr>
<tr>
<td>Duration of urinary incontinence - years (median, range)</td>
<td>3.0</td>
</tr>
<tr>
<td>(median, range)</td>
<td>(0.1-15)</td>
</tr>
<tr>
<td>Previous attempt for fistula repair n (%)</td>
<td>30</td>
</tr>
<tr>
<td>Loss to follow-up n (%)</td>
<td>20</td>
</tr>
<tr>
<td>(median, range)</td>
<td>(19.8)</td>
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</tbody>
</table>
Case series 1996 - 2002

- Complications at the time of delivery
  - perinatal mortality: 98%
  - Ruptured uterus: 10%

- Sectio rate: 40%

- Maternal mortality?
Case series 1996 - 2002
Localisation

- urethral: 40%
- trigonal: 24%
- supratrigonal: 20%
- combined: 7%
- recto-vaginal: 5%
- no data: 4%
## Case series 1996 - 2002

### Localisation

<table>
<thead>
<tr>
<th>Location</th>
<th>Count (%)</th>
</tr>
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<tbody>
<tr>
<td>Urethral</td>
<td>35 (34.7)</td>
</tr>
<tr>
<td>Trigonal</td>
<td>60 (59)</td>
</tr>
<tr>
<td>Supratrigonal</td>
<td>39 (38.6)</td>
</tr>
</tbody>
</table>
**Localisation of combined Fistulae**

<table>
<thead>
<tr>
<th>Description</th>
<th>n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urethral + Trigonal n (%)</td>
<td>24 (60)</td>
</tr>
<tr>
<td>Trigonal + Supratrigonal n (%)</td>
<td>12 (30)</td>
</tr>
<tr>
<td>Complete Involvement n (%)</td>
<td>4 (10)</td>
</tr>
</tbody>
</table>
Case series 1996 – 2002
Surgical approach

- Vaginal: 76%
- Abdominal: 21%
- Combined: 3%
Case series 1996 – 2002
Surgical technique

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Count (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Martius graft n (%)</td>
<td>32 (31.7)</td>
</tr>
<tr>
<td>Cutaneous graft n (%)</td>
<td>12 (11.9)</td>
</tr>
</tbody>
</table>
## Case series 1996 – 2002

### Outcomes

<table>
<thead>
<tr>
<th></th>
<th>VVF n = 81</th>
<th>RVF n = 6</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Success rate n (%)</strong> *</td>
<td>60 (74)</td>
<td>4 (67)</td>
</tr>
<tr>
<td><strong>Complications n (%)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stress incontinence</td>
<td>13 (16)</td>
<td></td>
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</tbody>
</table>

* Urinary diversion (uretero – sigmoidostomie) in 4 cases of 101 patients
Surgical tips

- Extended Trendelenburg position
- Scott retractor
- Headlight
- Sharp scissors
- Suture material

- Post op follow-up
- Cave: obstructed catheter !!
Martius Flap
Follow-Up

- Evaluation of possible stress incontinence
- Urinary infection
- Counselling for future pregnancy (cesarean sectio)
Prevention

- Access to prenatal care and education
- Medical infrastructure
Conclusions

- Majority of fistulae can be treated by vaginal approach
- In 35% of cases the urethra is involved
- Episiotomy not mandatory
- Martius flap preferable for urethral suspension and tissue interposition
- Carefull follow-up mandatory
References

- JH Naude. Reconstructive urology in the tropical and developing world: a personal perspective. BJU International 2002; 89 (suppl 1): 31-36