A COMPARATIVE STUDY OF THE MANAGEMENT OF VESICO AND/OR RECTO-VAGINAL FISTULAE AT BUGANDO MEDICAL CENTRE, MWANZA, TANZANIA, EAST AFRICA: A RETROSPECTIVE STUDY

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Postgraduate Training Course in Reproductive Health
Geneva 2004

Société Médicale Beaulieu Scholarship
DEFINITION

- **VESICO-VAGINAL FISTULA (VVF) or URINE FISTULA**
  Abnormal communication between the bladder and the vagina

- **RECTO-VAGINAL FISTULA (RVF) or STOOL FISTULA**
  Abnormal communication between the rectum and the vagina
CAUSES

- PROLONGED OBSTRUCTED LABOUR:
  - Obstetric fistulae

- IATROGENIC
  - Surgery: Hysterectomy, colporrhaphy, caesarean section

- MALIGNANCY

- RADIATION
  - Carcinoma of the cervix

- DIRECT TRAUMA TO THE BLADDER AND/OR RECTUM

- CONGENITAL MALFORMATION

- INFECTION
OBSTETRIC FISTULA:
Mechanism of formation in prolonged obstructed labour:

The fetal head gets stuck inside the birth canal

The bladder is compressed between the hard fetal skull and the hard maternal pelvic bones (symphysis pubis)

If not releaved within 3 hours by a caesarean section occurs:

Oedema, avascular necrosis (no blood supply)

Slough and a FISTULA develops
OBSTETRIC FISTULA HAS DISAPPEARED FROM THE INDUSTRIALIZED WORLD BUT

VERY COMMON IN THE DEVELOPING WORLD:

85%

OF ALL THE FISTULA WORLD-WIDE
SIGNS AND SYMPTOMS

● VESICO-VAGINAL FISTULA
  - Continuous urine leaking through vagina
  - Cannot be stopped or cleaned
  - Smell and excoriative dermatitis

● RECTO-VAGINAL FISTULA
  - Intermittent passing of stools through vagina
  - Can be stopped and cleaned (unless diarrhoea)
SOCIAL ACCEPTANCE

URINE FISTULA

far less acceptable than

STOOL FISTULA
SOCIAL IMPLICATION

woman with VVF is

Ostracized

from her own society and community

LIVES AS AN OUTCAST
PREVALENCE

AT LEAST 2,000,000
WOMEN AWAITING FOR SURGERY WORLD-WIDE

80-90% IN AFRICA
What Is Important?

TO CLOSE THE FISTULA
A retrospective comparative study of the management of vesico and/or recto-vaginal fistulae, between the usual and the modified method was done at Bugando Medical Centre, Mwanza, Tanzania, East Africa: from April 1996 to September 2003
OBJECTIVE OF THE MODIFIED METHOD

To provide a high quality fistulae repair which is:

- SIMPLE
- SAFE
- EFFECTIVE
- FEASIBLE
- SUSTAINABLE
- PAYABLE UNDER PRIMITIVE CONDITIONS
MODIFIED MANAGEMENT

- No examination under general anaesthesia (EUA) during first visit
- Early surgical closure, as soon as the fistula edge is clean
- No special light diet before surgery
- No treatment of excoriative dermatitis

USUAL MANAGEMENT

- Some required EUA during first visit
- All to undergo surgery after 3 months
- 3 days light diet
- Antibiotic creams
**MODIFIED MANAGEMENT**

- Two enemas before surgery
- One dose prophylaxis antibiotic therapy few minutes before surgery
- Spinal anaesthesia

**USUAL MANAGEMENT**

- 4 enemas
- Preventive and post-operative antibiotic therapy
- General anaesthesia
MODIFIED MANAGEMENT

- Starting with RVF repair then VVF
- Absorbable sutures on vaginal mucosa and episiotomy
- Urine bag on foley catheter

USUAL MANAGEMENT

- Starting with VVF repair when RVF and VVF are combined
- Non absorbable sutures
- Free urine drainage
<table>
<thead>
<tr>
<th>MODIFIED MANAGEMENT</th>
<th>USUAL MANAGEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>● Ambulation on day 2 post op</td>
<td>● 14 days in bed</td>
</tr>
<tr>
<td>● No routine use of Martius fat graft</td>
<td>● Routine use</td>
</tr>
<tr>
<td>● Normal diet at day 2 post op</td>
<td>● Fluid diet for 14 days</td>
</tr>
</tbody>
</table>
The comparison group of 100 patients has been selected randomly for age, cause and size of vesico and/or recto-vaginal fistula.

All patients were operated vaginally
The age ranged from 14 up to 65 years.

Age distribution for two groups

<table>
<thead>
<tr>
<th>Age group in years</th>
<th>No of patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>14-19</td>
<td>30</td>
</tr>
<tr>
<td>20-24</td>
<td>28</td>
</tr>
<tr>
<td>25-29</td>
<td>12</td>
</tr>
<tr>
<td>30-34</td>
<td>20</td>
</tr>
<tr>
<td>35+</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
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</tbody>
</table>
The common cause of vesico and/or recto-vaginal fistula was prolonged obstructed labour

Aetiology of vesico and/or recto-vaginal fistulae for two groups

<table>
<thead>
<tr>
<th>Cause of vesico-vaginal fistula</th>
<th>No. of patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prolonged obstructed labour</td>
<td>92</td>
</tr>
<tr>
<td>Ruptured uterus + hysterectomy</td>
<td>2</td>
</tr>
<tr>
<td>Caesarean section</td>
<td>4</td>
</tr>
<tr>
<td>Total abdominal hysterectomy</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>
The size of the fistulae, varied from small to extensive

Size of fistula for two groups

<table>
<thead>
<tr>
<th>Size of fistula</th>
<th>No. of patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small</td>
<td>25</td>
</tr>
<tr>
<td>Medium</td>
<td>50</td>
</tr>
<tr>
<td>Large</td>
<td>20</td>
</tr>
<tr>
<td>Extensive</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>
• **With the modified method:**

  Total cost of **45-70 USD** per patient
  Hospital stay of up to **30 days**

• **With the usual method:**

  Total cost of **60-300 USD** per patient
  Hospital stay of up to **10 months**
RESULTS

MODIFIED METHOD:

100 patients
Success rate 92%
Unsuccessful 8%
Mortality rate of 0%.

Cause of post-op mortality: uraemia
both ureters were tied during VVF repair

USUAL METHOD:

100 patients
Success rate 90%
Unsuccessful 9%
Mortality rate of 1%.
CONCLUSION (I)

The proposed modified management of vesico and/or recto-vaginal fistula:

- Prevents the woman from becoming an outcast in her society and her family.

- Prevents her from progressive downgrading medically, socially and mentally.
CONCLUSION (II)

- This management has equal success rate of closure as the usual method.

HOWEVER, IT IS MORE:

- Simple, fast, safe, effective, easy to learn, cheap
- Reduces hospital stay
- Can be applied under primitive conditions

- This is exactly what is needed in developing countries with a high annual incidence of fistula patients!
Thank You