



www.figo.org

Contents lists available at ScienceDirect

International Journal of Gynecology and Obstetrics

journal homepage: www.elsevier.com/locate/ijgo



CLINICAL ARTICLE

Impact of a program of physiotherapy and health education on the outcome of obstetric fistula surgery

Yves-Jacques Castille^{a,*}, Chiara Avocetien^b, Dieudonné Zaongo^c, Jean-Marie Colas^d, James O. Peabody^e, Charles-Henry Rochat^{f,g}^a Rehabilitation Department, Cliniques Universitaires St Luc, Brussels, Belgium^b Rehabilitation Department, Hôpital St Jean de Dieu, Tanguiéta, Bénin^c Gynecology Department, Hôpital St Jean de Dieu, Tanguiéta, Bénin^d Urology Department, Polyclinique du Parc, Dole, France^e Vattikui Urology Institute, Henry Ford Hospital, Detroit, USA^f Urology Department, Clinique Générale Beaulieu, Geneva, Switzerland^g Albert Einstein College of Medicine, New York, USA

ARTICLE INFO

Article history:

Received 21 February 2013

Received in revised form 13 June 2013

Accepted 29 August 2013

Keywords:

Health education

Obstetric fistula

Physiotherapy

Rehabilitation

Urinary incontinence

ABSTRACT

Objective: Surgery is the only successful treatment for most obstetric fistulae. The present study measured the impact of a structured program of pre- and postoperative physiotherapy and health education on the outcome of surgery for obstetric fistula. **Methods:** We compared the postoperative outcomes of 2 consecutive groups of women with obstetric fistulae who were recruited and followed-up by 2 local nongovernmental organizations at a hospital in Tanguiéta, Benin. The first group of women (n = 99) had fistula repair using standardized techniques. The second group (n = 112) had a standardized surgical approach plus a structured program of pre- and postoperative health education and physiotherapy. **Results:** The program had a significant positive impact on recovery in general and on urinary incontinence in particular. After physiotherapy, the odds of recovery were 2.72 times greater for women in the physiotherapy group than for control patients, and the probability of postoperative stress incontinence was considerably higher for patients in the control group than for those in the physiotherapy group ($P < 0.001$). **Conclusion:** A structured program of health education and physiotherapy by experienced nurses and physiotherapists improves the likelihood of a successful outcome after surgical repair of obstetric fistula.

© 2013 International Federation of Gynecology and Obstetrics. Published by Elsevier Ireland Ltd. All rights reserved.

1. Introduction

An obstetric fistula is usually the result of an injury that occurs during a birth complicated by prolonged or obstructed labor. Tissue ischemia resulting from compression of the head of the child results in a hole between the woman's genital tract and her urinary tract and/or rectum [1]. The location, size, and complexity of these fistulae can vary widely. They can be vesicovaginal, rectovaginal, ureterovaginal, or uterovaginal. Within the bladder, fistulae can be juxta-urethral, midvaginal, or juxtacervical, and they frequently involve the continence mechanism. They can be classified as simple or complex and single or multiple [2]. There is no real consensus about the classification of obstetric fistulae. Capes et al. [3] compare the 2 most commonly used systems, the Waaldijk [4] and Goh [5] classifications.

Whereas the prevalence of this problem is almost zero in industrialized countries because of good access to perinatal care, in low-income

countries it is still very common, especially in Sub-Saharan Africa and South East Asia [4,5]. The annual incidence is estimated to be between 50 000 and 100 000 women worldwide. The prevalence may be over 2 000 000 women [6]. These estimates are felt to be low by some authors because of difficulties in obtaining accurate data from remote areas where the problem is more likely to occur, but it shows the importance of this disease in terms of public health.

The consequences of living with an obstetric fistula are multiple and often severely disabling for the woman, not only for her physical integrity but also her emotional, psychological, familial, and social well-being. The experience of living with a fistula has a negative impact on a woman's identity. Sometimes a woman with a fistula is accused of being "negligent" and is told that this has led to the death of her child and the development of her "disease." Often she is repudiated by her husband, rejected by her village, and doomed to try to survive on her own. This can lead to social isolation and even mortality; "I am nothing" [7] is the feeling that women living with an obstetric fistula have.

The ultimate solution to obstetric fistulae is prevention through better prenatal care and better access to emergency obstetric care, especially timely cesarean delivery. Over the long term, it will be universal access to emergency obstetric services, along with better family planning,

* Corresponding author at: Rehabilitation Department, Cliniques Universitaires St Luc, Avenue Hippocrate, 10 at 1200 Brussels, Belgium. Tel.: +32 1 0474503; fax: +32 1 0473106.

E-mail address: yves.castille@uclouvain.be (Y.-J. Castille).

education of girls and women, economic development, and gender equality that will decrease the rate of obstetric fistulae in resource-poor regions to that in the industrial world [8,9].

For women with an established fistula that has not resolved with a trial of urinary catheterization, the only solution is surgery that attempts to close the fistula and, if necessary, to repair and reinforce the continence mechanism. Healing (closure of the fistula and return of continence) is not always obtained after a first attempt especially for more complex fistulae, and reoperations may have lower success rates than initial repairs. The success of the operation depends on many factors such as the degree of scarring and tissue loss, the size and location of the fistula, and the surgeon's experience. The final procedure for some women when all else fails is a diversion using either the Mainz II or the ureterosigmoidostomy technique.

We believe that the failure of some repairs is attributable to a lack of knowledge by women about their situation, resulting in particular in mismanagement of abdominal pressure especially in the early postoperative days.

Handicap International, a nongovernmental organization (NGO) headquartered in Brussels, Belgium, aims to support the rehabilitation and return to society of disadvantaged populations. During field visits, Handicap International experts often encounter women with an obstetric fistula. The organization is eager to improve the care of these women and therefore commissioned our group to undertake the present study.

2. Materials and methods

At the Hospital of St Jean de Dieu in Tanguiéta, Benin, surgical missions to repair obstetric fistulae are held 4 times per year. The patients are recruited by 2 NGOs: Sentinelles, a Swiss NGO that works in south-eastern Burkina Faso; and Essor, a Beninese NGO that works mainly in the northern part of Benin, northwest Niger, and east Togo. These NGOs receive considerable financial support from the United Nations Population Fund and the Geneva Foundation for Medical Education and Research to enable the women to benefit from the program. During the preoperative phase, the women live in a camp located 3 km from the hospital. Facilitators from the NGOs organize the women's visits to the hospital, where they receive health education and physiotherapy instructions.

Because of the situation in Tanguiéta, a randomized study of this intervention would have been difficult to conduct. We therefore performed a prospective study to compare 2 consecutive groups of patients (Table 1). The study was approved by the ethics committee of St Jean de Dieu Hospital and the leaders of both NGOs. The participants, most of whom were illiterate, provided verbal informed consent.

The first cohort of women was seen between November 1, 2009, and January 31, 2011. This group received usual care with details of the surgery dictated by the extent of the fistula (control group). The second

group was seen between March 1, 2011, and March 31, 2012. These women received the same usual care augmented by a program of health education and physiotherapy (study group).

During the first mission, nurses from the 2 NGOs were trained in quality of life assessment using the Ditrovie scale [10]. This is a validated scale in French to assess the quality of life of patients with urinary symptoms. It consists of a questionnaire with 10 items scored from 1 to 5 exploring 5 dimensions: activity (4 items), emotional impact (2 items), self-image (2 items), sleep (1 item), and general welfare (1 item). A score of 1 indicates that the situation is slightly embarrassing and a score of 5 indicates extreme embarrassment.

The quantity of urine loss was measured in both groups by a 1-hour pad test, following the recommendations of the International Continence Society (1983) [11].

Our hypothesis was that surgical success is determined not only by technical factors and the anatomy and complexity of the fistula, but also by factors that women can control: activities of daily living, such as coughing or defecation, that increase abdominal pressure. A program of health education and management of abdominal pressure through physiotherapy was tested to try to reduce to a minimum the harmful effects of these pressures on postoperative recovery. The nursing staff received theoretical and practical training on how to manage patients, especially in the early phase after surgery (Table 1).

Before surgery, the women in the study group participated in several group sessions at camp and individual sessions at the physiotherapy ward to learn various techniques to reduce abdominal pressure during everyday activities.

These didactic sessions were held in collaboration with the nurses from the NGOs who provided screening, hospital accompaniment, and follow-up of the women. In addition to assisting in the training aspect of these sessions, the nurses also helped by translating instructions and corrections into the languages and dialects spoken by the women. All instructions were also shown on posters (Fig. 1), which were displayed in all places where the women stayed. Copies were given to each NGO to be used for postoperative follow-up visits.

Specific physiotherapy support was provided by a physiotherapist who was trained in abdominopelvic care/perineology. The women attended 2 preoperative sessions. During the first session, they received basic information on perineal functionality, followed by an initial bio-feedback session with a vaginal probe (Myomed 932; Enraf-Nonius, Rotterdam, The Netherlands). The women were taught to perform perineal contractions for 5 seconds followed by a rest period of 10 seconds. Finally, a basic hypopressive exercise was taught and we insisted on compliance with preventive behaviors represented on the poster. The women were instructed to repeat the exercises for 10 minutes twice per day. The second physiotherapy session was a review of how the women performed the exercises. An optional third session was organized for women who needed an additional review and training.

After surgery, the women were hospitalized for approximately 1 week and were then discharged to the fistula camp with a urinary catheter for 10–14 days. They received further physiotherapy sessions and then returned for a clinical examination to determine whether the fistula was healed and their continence restored.

Further follow-up was carried out at 3, 6, and 12 months by the nurses from the NGOs. In addition, most socially isolated women were offered vocational training and/or microcredit to ensure their income allowed them to have an acceptable economic and social life.

Significant differences between groups were evaluated with the *t* test or the nonparametric Wilcoxon rank test as appropriate. Logistic regression analysis was performed to assess the probability of recovery (fistula cured or incontinence) versus non-recovery (failed repair or urinary diversion). Variables included in the model were group assignment and number of previous fistula surgeries, given that successful repair is dependent on the number of previous surgeries a woman has undergone. Odds ratios were calculated to compare the probability of recovery between the groups. All results were computed

Table 1
Timeline of the study.

Date	Study-related activity
November 2009	First surgical mission for the control cohort Training of nurses in applying the Ditrovie scale Quantification of urine loss by a physiotherapist
March 2010	Evaluation of early results together with local partners Encouragement of local teams to provide postoperative follow-up
March 2011	First surgical mission for the study cohort Training of a physiotherapist specializing in perineology Training of nurses in techniques to assess the strength of the surrounding abdominal wall Implementation of the program of health education and physical therapy
March 2012	Collection and evaluation of all data collected during the preceding year
March 2013	Collection and evaluation of all data collected during the preceding year Final analysis

Download English Version:

<https://daneshyari.com/en/article/6187245>

Download Persian Version:

<https://daneshyari.com/article/6187245>

[Daneshyari.com](https://daneshyari.com)