Peritonitis and Pelviperitonitis Following Clandestinal Abortion Received at Sylvanus Olympio Teaching Hospital of Lomé

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ABSTRACT

Introduction: Clandestine induced abortion is responsible for significant morbidity and maternal mortality, most often with peritonitis, which remains a medical and surgical emergency. Even the life-threatening and obstetrical future of the patients is at stake. Objectives: To describe the epidemiological, therapeutic and clinical aspects of patients with post-abortion peritonitis. Material and method: From January 1, 2013 to December 31, 2017, we performed a retrospective study of 42 cases of post-abortion peritonitis divided into 05 pelviperitonitis and 37 peritonitis collected at CHU-SO. Results: One hundred and seventy-six cases of complications of abortion were identified during our study period, of which 42 cases of peritonitis (23.86%). Peritonitis is the most serious complications. The average age of our patients was 25, 61 years old. The most affected age group is the 20-24 age group with a rate of 35.71%, those living in socially disadvantaged conditions (50% female sellers, 16.67% female students), the primiparous (38,10%). Signs of peritoneal irritation associated with malodorous losses were observed in all of our patients. One hundred of the cases benefited from a surgical procedure for drainage washing, intestinal anastomosis resection, uterine perforation suture, adnexectomy, hysterectomy and / or placental retention evacuation. The mortality rate was high (14.29%). Conclusion: Post-abortion peritonitis remains a serious and frequent complication. They are an important predictor of morbidity and mortality in women of childbearing age. The occurrence of these complications can be reduced by the prevention of post-abortion infections and by the information on contraception and the risks run by this practice, which is still clandestine in our countries, but which nevertheless remains frequent.

Keywords: Peritonitis, Clandestinal abortion, Lomé (Togo)

1. INTRODUCTION

Post-abortum pelviperitonitis is a common and serious pathology, thus constituting a medical-surgical therapeutic emergency where antibiotic therapy and peritoneal asepsis are life-threatening [1]. They have become rare in
developed countries because of the legality of abortion, the respect of asepsis during its implementation and the rational use of antibiotic therapy [2]. In developing countries (LDCs), particularly those in sub-Saharan Africa, they remain high due to clandestine induced abortions, lack of asepsis and anarchic use of antibiotics [3,4]. Their prognosis is related to the quality and the precocity of the care.

According to the World Health Organization (WHO), complications of abortion are responsible for about 14% of the 500,000 maternal deaths recorded each year, 99% of which are in developing countries [5]. In Togo, where abortion is not unpunished, the use of clandestine induced abortions is responsible for a significant mortality, of which 17.24% are related to the complications of pelviperitonitis [6]. The Ministry of Health and Population of Togo, in its strategy of reducing maternal morbidity and mortality, introduced in 1998 and 1999, respectively, post abortion care (PAC) in hospitals. However, since 2012 it has been noted in the Gynecology and Obstetrics Department, an increase in the number of hospitalizations for post-abortion. In Togo, where abortion is not unpunished, the use of clandestine induced abortions is responsible for a significant mortality, of which 17.24% are related to the complications of pelviperitonitis [6]. The Ministry of Health and Population of Togo, in its strategy of reducing maternal morbidity and mortality, introduced in 1998 and 1999, respectively, post abortion care (PAC) in hospitals. However, since 2012 it has been noted in the Gynecology and Obstetrics Department, an increase in the number of hospitalizations for post-abortion pelviperitonitis [7]. To enable Africa to cope better with this scourge, it is important to have data on all aspects of this disease. It is in this context that the present work was undertaken in Lome (TOGO).

2. METHODS

The data used in this work come from the Obstetrics and Planning Gynecology Clinic at the Sylvanus Olympio University Hospital Center (CHU-SO). This was a retrospective descriptive study conducted from January 1st, 2012 to December 31st, 2016. Our study focused on the files of women hospitalized for post-abortion induced peritonitis in the gynecology and obstetrics department of CHU-SO. We included in our study all women admitted or referred to the CHU-SO in whom the diagnosis of post-abortion peritonitis was made and whose file is found and complete. These files were found in the archives service.

The variables studied were:
- Epidemiological variables: age, gestationality, parity, marital status, education levels, profession of women.
- Therapeutic variables: Therapeutic attitudes; Surgical gestures
- The clinical evolution

The data processing was done by Excel software, Epi info version 7. The variables studied were represented in percentage, proportions. The small number of patients did not allow us to make statistical tests for the comparison of the different variables.

3. RESULTS

Frequency
From 01 January 2013 to 31 December 2017, we recorded 50,657 hospitalizations, including 2517 abortions. Among the 176 cases of abortion were clandestine induced abortions and 42 had pelviperitonitis with a frequency of 23.86%.

Epidemiological profile
The average age of this group was 25.61 years with extremes of 17 and 38 years. The age groups of 20-24 years and 25-29 years were the most represented respectively 35.71% and 21.43%. It ranged from 0 to 6 with an average of 2.64. The primiparous and the second were the most affected respectively 33.81% and 33.33%. It ranged from 0 to 5 with an average of 1.40. Nulliparous and primiparous women were the most affected respectively 28.57% and 38.10%. 50% of our patients were resellers testifying to the low standard of socio-economic life. The singles were the most represented in our study. 69.05% (Table1).

Table 1: Epidemiological profile of patients.

<table>
<thead>
<tr>
<th>Age</th>
<th>Effective</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-19</td>
<td>7</td>
<td>16.67</td>
</tr>
<tr>
<td>20-24</td>
<td>15</td>
<td>35.71</td>
</tr>
<tr>
<td>25-29</td>
<td>9</td>
<td>21.43</td>
</tr>
<tr>
<td>30-34</td>
<td>6</td>
<td>14.29</td>
</tr>
<tr>
<td>≥ 35</td>
<td>5</td>
<td>11.9</td>
</tr>
<tr>
<td>TOTAL</td>
<td>42</td>
<td>100.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Parity</th>
<th></th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>nulliparous</td>
<td>12</td>
<td>28.57</td>
</tr>
<tr>
<td>primipare</td>
<td>16</td>
<td>38.10</td>
</tr>
<tr>
<td>Few previous deliveries</td>
<td>8</td>
<td>19.05</td>
</tr>
</tbody>
</table>
Support
The therapy was of two kinds: medical treatment for cases of pelviperitonitis and surgical treatment for peritonitis. All patients benefited from pre-, postoperative and postoperative resuscitation with vascular filling (crystalloid, Ringer (r) macromolecules and red blood cells), broad-spectrum antibiotics and high doses (beta lactam antibiotics or cephalosporins + aminoside + metronidazole), oxygen therapy by nasal tube and tetanus serotonotherapy. We have always associated injectable quinine or artemether, Togo being a malaria endemic area. Thirty-seven (37) of our patients had 88.10% surgery and 05 patients received medical treatment with 11.90%. It was a left subparallu and laparotomy.

Different gestures associated with laparotomy
Hysterectomy and drainage alone had been the most frequently performed, 35.14% and 32.43% respectively. Of the 42 patients received, 36 patients were cured (85.41%), two of whom were unoperated. We recorded six deaths (14.29%), three of which were not operated. (figure 1) Immediate morbidity was dominated by 05 parietal suppurative cases, ie 13.51%. Five patients were not operated on. Two healed under medical treatment. Three (7.15%) died despite resuscitation before the surgery could be performed.

Table 2: Distribution of patients by gestures associated with laparotomy

<table>
<thead>
<tr>
<th>Type of surgery</th>
<th>Effective</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hysterectomy</td>
<td>13</td>
<td>35.14</td>
</tr>
<tr>
<td>Washing + drainage alone</td>
<td>12</td>
<td>32.43</td>
</tr>
<tr>
<td>Hysterography</td>
<td>05</td>
<td>13.51</td>
</tr>
<tr>
<td>Resection-intestinal anastomosis</td>
<td>04</td>
<td>10.82</td>
</tr>
<tr>
<td>Hysterectomy + adnexectomy</td>
<td>01</td>
<td>02.70</td>
</tr>
<tr>
<td>Hysterectomy + partial resection of the bladder</td>
<td>01</td>
<td>02.70</td>
</tr>
<tr>
<td>Hysterography + unilateral adnexectomy</td>
<td>01</td>
<td>02.70</td>
</tr>
<tr>
<td>TOTAL</td>
<td>37</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Prognostic aspects
Length of hospital stay
The average hospital stay was 12.67 days (range 2 and 25 days). The patients' length of stay was rather long, 85.71% of them remained in the ward for more than a week.

Evolution
Of the 42 patients received, 36 patients were cured (85.41%), two of whom were unoperated. We recorded six deaths (14.29%), three of which were not operated. (figure 1) Immediate morbidity was dominated by 05 parietal suppurative cases, ie 13.51%. Five patients were not operated on. Two healed under medical treatment. Three (7.15%) died despite resuscitation before the surgery could be performed.

Figure 1: evolution of peritonitis (14.29 % deceased, 85.41% healed)
4. DISCUSSION

Frequency
During our study period, we recorded 2517 cases of abortions, including 176 clandestine ones. The frequency of post-abortion induced post-abortion peritonitis is 23.86% (42 of the 176 cases of induced abortion), which is higher than the 19.38% of Adjahoto et al. [8] in Togo, which recorded 132 cases from February 96 to February 1997 and 19.9% from Ravalomanana et al. [9]. The frequency of hospitalizations for complications of illegal abortion varied by series: 0.71 per 1,000 according to Hakim-Elahi et al. [3] in his series of 170,000 abortions performed in New York in 1971 and 1987, Sykes et al. [10] registered 167 admissions out of 2,879 IVGs at Christchurch Women's Hospital in 1989 and 1990, 100 per 1,000 annually in Michigan USA for Kulczyki et al. [11]. 472 over a period of 3 years (1993 to 1995) for Goyaux and al. [12] in Abidjan, 1.24% for Andrianasolo [13] in Antananarivo.

Age
Several studies have shown the correlation between the age of women and the use of abortion. The average age of our 25.61-year-old patients is close to 24.6 years of Ravalomanana et al [9]. In our study peritonitis occurred more frequently between 15 and 29 years or more than 73.81%. Beyond these ages, they are rare but offer a significant frequency. If in our study group the young subject was 17 years old, they can occur in even younger subjects. In the Tsiklonou study group at CHU-SO in Lomé [14] the youngest subject was 14 years old, and the highest rate was between 16 and 35 years old. Our age group is close to that of Baeta et al at CHU-SO in Lomé [15], who found 84.84% in their study group and Adom et al at CHU-SO in Lomé [6] have found 71.95%.

The prevalence of this age group in the practice of abortion also informs about the precocity of sexual relations. This frequency is due to under-reporting of sexuality and contraception because for girls, contraception is the exclusive preserve of married women [8].

Profession
In our study, the rate was higher among female sellers and students, namely 50% and 16.67% respectively. This trend is the opposite for Traoré [16] in Mali who found respectively 25.75% and 35.60%. The broad practice of abortion caused by clandestine abortion can be explained by the desire to delay births until marriage or after school; a lack of means; infidelity or a short intergenetic interval; unwanted pregnancy.

Marital status
The marital status of women is an important determinant of induced abortion. In fact, according to the literature, single women abort more than those who are married, divorced or widowed. It also emerged from our study that 69.05% of patients were single and 19.05% were married women and 11.90% were cohabiting. This is explained more by the fact that they do not want children yet because pregnancies outside marriage are sometimes badly accepted in some families and societies; or because they are still in school and do not want to stop studying. [17]). Brides abort either because they no longer want children or to space their births. This practice can also occur in the latter following an extramarital pregnancy. In Douala and Yaoundé, the majority of married women reported having aborted by the need for family planning (55%), then for economic reasons, the lack of financial resources (33.3%) and professional constraints (4%). 5%). Ngwé et al. 2005 [18]

Operative Acts
The drainage wash is a capital time in the surgical therapy of any peritonitis. It was performed in 37 patients who underwent surgery. Only 12 patients underwent drainage washing only after careful digging of the peritoneal cavity for organ lesions [19]. Another technique was associated with drainage washing in the remaining 25 patients.

Uterine perforation was the main cause of peritonitis in our series followed by contiguous peritonitis and intestinal lesions [3], [4], [10], [20]. Ravalomanana [9]found in addition to the uterine perforation a retention of debris but there was no intestinal lesion. The total hysterectomy was done in 13 cases or 35.14% of which a nulliparous. Adom [6] on the other hand found on the 7 cases of hysterectomy 5 nulliparous. In addition to hysterectomy, unilateral adnexectomy was performed in one patient; and partial resection of the bladder in another. It is the cause of a definitive secondary infertility thus compromising the obstetrical future of the woman.

The hysterography was made after the ravages of the uterine perforations. It weakens the uterus that becomes scar. Subsequently her patients are exposed to uterine rupture during a future pregnancy. Unilateral adnexectomy was performed in two cases (5.40%) but associated with hysterectomy and hysterography. This technique reduces the fertility of
the last patient especially if the contralateral appendage is not healthy. Anastomosis of the small bowel and sigmoid was performed in 04 cases. Diane B et al. [21] in Ivory Coast presented two cases of digestive perforation per abortum. It is a rare complication but remains dangerous for the life of the patient requiring the assistance of the digestive surgeon

**Evolution of peritonitis**

During our study, we had 36 cases of healing. 85.71%. This rate is lower than that of Ravalomanana [9] who found 87% of cure. The mortality was high (14.29%) Harioly Nirina [22] Ralisata in Madagascar [9]; Ngbale in Bangui [23] and Tokongmo [24] in Cameroon have a lethality rate of 9; 13; 20.8 and 23.3%. Abiodun [25] in Nigeria had a case fatality rate of 16.6% for abortions and 30.2% for all-cause maternal mortality. This high case fatality rate is related to the delay in the care because the majority of the deceased women came to our service after 5 days and the low economic level does not allow the purchase of drugs. As abortion was not legal, these girls preferred to remain in hiding and when the general state became very altered under duress of parents, they came into the service, which made precarious care. This late management would also compromise the obstetrical future of these patients [9, 23, 26, 27].

Maternal mortality by sepsis and peritonitis after illegal abortion varies between 8.3% [26] and 69.6% [28]. This significant mortality encourages us to take the necessary preventive measures to stop this social scourge, but for that, it is necessary to fight against the clandestine abortions. In countries where this act is legalized, there is a considerable reduction in complications. Should we in our country legalize abortion? Could we thus reduce the unfortunate consequences? The prevention of illegal abortion and its consequences is based on the intensification of information and education on family planning, information on its medical, psychiatric and psychological complications. Access to family planning services should be improved to reduce the number of pregnancies

**5. CONCLUSION**

Post-abortion peritonitis remains a serious and frequent complication. They are an important predictor of morbidity and mortality in women of childbearing age. The persistence of socio-cultural barriers, the lack of information on contraception, the lack of reproductive health education, the difficulty of access to care explain the increase in the number of clandestine abortions and their complications. The occurrence of these complications can be reduced by the prevention of post-abortion infections and by the information on contraception and the risks run by this practice, which is still clandestine in our countries and nonetheless remains frequent.

**REFERENCES**

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