DOI: http://dx.doi.org/10.18203/2320-1770.ijrcog20175830

# **Original Research Article**

# Illegals abortions and utero-digestives lesions: retrospective study of 12 cases in the Department of Gynecology and Obstetrics at the Treichville teaching hospital (Abidjan, Cote D'ivoire)

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Received: 02 November 2017 Accepted: 02 December 2017

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# ABSTRACT

**Background:** Traumatic intestinal digestive damage after abortion by endo-uterine manoeuvres are not uncommon. The purpose of this study is to describe the diagnostic, therapeutic and prognostic aspects of these lesions.

**Methods:** This is a retrospective study of 3 years on patients with a uterine lesion associated with a digestive traumatic injury during illegal abortions endo-uterine manoeuvres.

**Results:** 12 patients with a median age of 23, 9 are included. The clinical manifestations are not specific: impairment of the general condition 33.3%; hyperthermia 83.3% (or 10 cases); digestive disorders such as diarrhoea 25%, vomiting 33.3%; abdominal pain 100%; occlusive syndrome 16.7%; acute abdominal syndrome 75%. The seat of traumatic injuries is variable. The lesions were for hail alone in 4 cases (33.3%), colon alone for 2 cases (16.7%), rectum 1 case and epiploon 2 cases. In these 3 cases, the lesions were associated, sitting on both the hail and the colon at a time. All these lesions were associated with uterine perforation of variable siege. The therapeutic management consisted of a small bowel resection with ileostomy in 5 cases or 41.7%; colon resection with colostomy 3 cases or 25%; suture lesions after beveling beiges 5 cases either 41, 7 in 2 cases, we performed haemostasis on the bleeding epiploon. Treatment of the uterine lesion was conservative 75% of the time. The evolution on the 10 patients was favorable, 83.3%. Two patients died early in the operative course after septic shock.

**Conclusions:** The digestive lesions are a factor aggravating the prognosis of post-abortion uterine manoeuvres. Their management must be rapid and requires close collaboration between the digestive surgeon and the Gynecologist.

Keywords: Illegal abortion, Surgery, Utero-digestive lesions

### INTRODUCTION

In Côte d'Ivoire, apart from therapeutic interruption of pregnancy, abortions are considered illegal and therefore punishable by law.<sup>1</sup> This situation makes the authors practice the act in conditions not always ideal and with means sometimes very aggressive thus increasing the risk of accidents or incidents such as uterine lesions.<sup>2</sup> These

lesions of the uterus are sometimes associated with intestinal lesions, thus aggravating the mortality and morbidity associated with abortions. Indeed, the lethality due to clandestine abortions is between 8 and 70% according to the authors.<sup>3</sup> The search for intestinal lesions after uterine perforation must be systematic. The purpose of this study is to describe the diagnostic, therapeutic and prognostic aspects of these utero-digestive lesions.

#### **METHODS**

We conducted a descriptive retrospective study that lasted 3 years from January 2012 to December 2014 in the Department of Gynecology and Obstetrics of the CHU of Treichville (Abidjan-Côte d'Ivoire). This service is a reference center for peripheral maternity which receives majority of patients evacuated.

We have included all patients admitted in the study period who have practiced an illegal abortion of uterine or vaginal lesions associated with digestives lesions.

We recorded 242 patients admitted for complications of clandestine abortion, among which 12 had uterine lesions associated with digestive lesions.

The parameters studied examined the socio-demographic characteristics of the patients, the gynecological history, the clinical and paraclinical characteristics of the lesions, the management and prognosis of its lesions.

The data collection was based on an individualized survey form with the patient files, the gynecology emergency registry and the registry of the operational reports. Data analysis was done with the EPI info software

#### RESULTS

#### Frequency

Of 242 patients admitted from January 2010 to December 2014 in our department for illegal abortion complications, we recorded 27 cases (11.1%) of uterine perforations and 12 cases, either 4.9% of associated digestive lesions.

#### Table 1: Distribution of patients by sociodemographic characteristics.

Characteristics	Number	Percentage
Age (year)		
15-19	03	25
20-24	04	33.3 Average: 23.5 Extreme: 15
25-29	02	16.7
>30	03	25
Profession		
Pupil/student	04	33.3
Traders	04	33.3
Salaried	01	08.4
Unemployed	03	25
Marital status		
Single	06	50
Free union	03	25
Married	2	16.7
Not specified	1	08.3

# History and characteristics of voluntary termination of pregnancy

8 patients were nulliparous, one had 3 children alive and 03 others were primiparous. 04 among them had a history of voluntary termination of pregnancy from 01 to 04. The average age of pregnancies in this case is 14.4 weeks with extremes of 08 and 23 weeks. All abortions were performed by curettage in peripheral structures, including 03 in a public health facility and 09 in private district infirmaries.

The acts were committed in 04 cases by general practitioners including 01 gynecologist obstetricians. In 05 cases, the maneuver was performed by male nurses. The quality of the operators was not found in 03 cases.

3 patients were admitted immediately after the maneuver in front of the epiploon exit and one end of the loop in the vagina and the 8 others with the abdominopelvic pain syndromes. The admission period is from 02 hours to 21 days.

03 patients were admitted within 2 hours after endouterine maneuvers, 05 patients within 48 hours, 02 patients 03 days after abortion. The remaining 02 were admitted one week and 03 weeks later.

#### Clinical and paraclinical aspects of observed lesions

The clinical characteristics of the patients are described in Table 2.

#### Table 2: Clinical characteristics of the patients.

Characteristics	Number	%	
Functional signs			
Pelvic abdominal pain	12	100	
Metrorrhagia	03	25	
Vomiting	04	33.3	
Diarrhoea	03	25	
General signs			
Alteration of the general condition	04	33.3	
Fever	05	41.6	
Physical signs			
Peritoneal syndrome	05	41.6	
Occlusive syndrome	02	16.6	
Stool issue in the vagina	01	08.3	
Issue of cove in the vagina	03	25	

The paraclinical assessment requested at the admission was an ASP (n = 5) with images in gaseous crescent under right diaphragmatic evoking a perforation of hollow organ.

Abdominopelvic ultrasonography was performed urgently (n = 5) for Douglas abscess (n = 1), strong suspicion of pyoannexis (n = 2), acute abdominal pain (n = 2). Ultrasonography revealed the presence of ovum

debris in the uterus (n = 4), hypoechogene corpereo isthmic image evoking the presence of air in the uterus (n = 1), fluid effusion in the uterus. The Douglas (n = 5).

The diagnoses after clinical and paraclinical examinations retained were: Douglas abscess (n = 1), hemoperitoneum by uterine perforation (n = 2), generalized peritonitis of post abortum (n = 5), perforation uterine (n = 2) and post abortum pelviperitonitis (n = 2).

The surgical approach was a medial umbilical incision (n = 10) and a Pfannenstiel incision (n = 2).

On 25 patients operated for uterine perforation by endouterine maneuver, we found 12 cases or 48% of associated intestinal lesions.

The digestive lesions were variable and often associated. Was found in per operative, ileal perforation located 3 cm to about 5 cm from the ileocecal junction, two other perforations 3 cm long located at 10cm and 20 cm from the ileocecal junction. There were also 2 cases of sphaeles of the ileum that carried one on 60 cm and the other on 40 cm of the handle. The lesions concerned the colon alone in 2 cases and sat one on the sigmoid with a perforation of 4 cm with necrotic edges. In 1 case of perforation of the upper rectum 4 cm long.

The omental piploon (n = 4) with haemoprotein was found.

All these lesions were associated with single or multiple uterine perforation. Uterine lesions were found on the fundus (n = 5), anterior (n = 3), anterior (n = 2), posterior (n = 2), posterior (n = 2) and cervical isthmic (n = 2) posterior (n = 1). The uterine breccias ranged from 1 cm to 6 cm and the edges were necrotic (n = 4). In 3 cases there was uterine gangrene. The presence of ovular debris in the uterine cavity was found in 50% of cases.

#### Management of lesions

The management of the digestive lesions was done in all cases in the presence of a digestive surgeon who was present at the start of the procedure (n = 3). In the other cases (n = 9) it is persoperative in front of the digestive lesions discovered that we resorted to the digestive surgeons which sometimes delayed the intervention.

Gastrointestinal management consisted of resection of the small bowel with ileostomy (n = 5), colonic resection with colostomy (n = 3), suture of the intestinal lesions after softening of the beiges (n = 5). In 2 cases, we performed hemostasis on the bleeding epiploon.

A total hysterectomy was performed with conversation of the appendices in 25% of cases (n = 3). In the other cases, we sutured the uterine lesions after having evacuated the uterine cavity by the breach of perforation persoperatively. The surgical procedure was completed by abdominal lavage with physiological serum (n = 10).

The drainage of the cavity was carried out in eight cases. The patients were placed on antibiotic sorting (n = 7) by the parenteral way associating a  $\beta$ -lactam, an aminoglycoside and a metronidazole.

In 3 cases, it was an amoxicillin-clavulanic acid combination and in two cases postoperative treatment was not found.

Five of our patients were transferred to gastrointestinal surgery after the procedure and the follow-up after recovery in the digestive continuity was simple. We also deplored two deaths in the immediate after-effects at D2 and D3 by septic shock.

# DISCUSSION

The frequency of gastrointestinal lesions associated with uterine perforation during illegal abortions is 4.9% in the present series against 11.8% in the Bohoussou series in the same department but at two different times.<sup>4</sup> This difference can be explained by the fact that the sample from the Bohoussou study only covers post-abortion peritonitis, whereas we are concerned with all the complications of illegal abortion.

The average age of our patients (23.9 years) is close to that of LEBEAU.<sup>1</sup> Bohoussou estimates it to be 20.8 years old.<sup>4</sup> On the other hand, Takongmo S estimates in his study the average age around 30 years.<sup>5</sup> This young population is most often single, primigest and pauciparous to see nulliparous.<sup>1,5,6</sup> This epidemiological profile corresponds to pupils, or students without much means and therefore more vulnerable. Several authors have reached the same conclusion.<sup>7-9</sup> Anyway, Ngowa in her series finds a high rate of married women who is close to 70% (68.5%).<sup>10</sup>

Uterine perforation is the beginning of intestinal lesions. They are associated in almost half of the cases in the present study. Situation described by several authors.<sup>4,7,11,12</sup> This is explained by the method used (curettage) and by the quality of the operators, who most of the time are not gynecologists and all lack cautious and precautionary.<sup>4</sup> Diane in 2 observations and Lebeau in his study show a high rate of non-specialist doctors respectively 100% and 60%.<sup>13,1</sup> Some authors also incriminate the experience of practitioners. They feel that surgical complications are more common with poorly experienced practitioners.<sup>14,15</sup>

The most common clinical picture is diffuse abdominal pain with 41.66% of cases, associated fever. In some cases, pelviperitonitis with liquid was noted in Douglasfir. This clinical picture is made from the  $48^{\text{th}}$  and  $72^{\text{nd}}$  hours. The only case where the patient consulted 3 weeks after curettage, the clinical picture was that of a Douglasfir abscess with vague abdominal pain.

The explanation would come from the fact that in the complaints that occurred one week after the maneuver, the operator started antibiotic and anti-inflammatory medical treatment within two weeks. It is in front of the persistence of the symptomatology that it was admitted after a delay of 21 days (the longest delay of our series).

Lebeau finds admission times between 6 hours and 7 days.<sup>1</sup> The realization of ASP was not found in other authors. It was asked in our series for occlusive syndrome (n = 2) and table of peritonitis (n = 2).

The images in crescent under diaphragmatic were found 3 times. The interest here of this examination makes it possible to suspect in the uterine perforations an associated intestinal perforation and thus to obtain the presence of a digestive surgeon at the beginning of the procedure. Especially that the scanner is not a routine examination in our context because of its inaccessible cost for most of our patients. Ultrasonography performed on 5 of our patients did not show any digestive lesions. This is also the case in the Lebeau series.<sup>1</sup>

On the other hand, the presence of the rest of the egg in the uterus has been very clearly visualized. The localization of intestinal lesions is not fortuitous. It is a function of the anatomical relations between the uterus and the digestive loops, which explains the high frequency of perforations of the sigmoid colon when the uterine perforation is corporeal posterior to posterior isthmic.<sup>13</sup>

We made this same observation once in two in the present series. Ileal perforation and associated colic are linked in our series of multiple uterine perforations. Two cases of sphacelus of the ileum have been described.

The mechanism would be the strangulation of the loop and its meso in the uterine breccia. This same mechanism is described by some authors.<sup>1,16</sup>

The treatment of digestive lesions was done by the digestive surgeons present either at the beginning of the intervention, or intervened during the intervention. That is, the importance of operative management by a double team of gynecologists and digestive surgeons.<sup>13</sup>

We had to perform resections sutures, abrasions sutures, resections of loop with ileostomy or colostomy due to the soiled abdominal cavity. This is the same attitude that has been adopted by most authors.<sup>13,16</sup> The uterine lesions were repaired by sutures after bank edging. In two cases, in front of the almost total necrosis of the uterus, a hysterectomy was performed.

Lebeau, Cisse, report three cases of hysterectomy for gangrene of the uterus.<sup>1,17</sup>

The evolution was marked by two deaths in a septic shock chart. These two deaths are due for one to a delay in the care (1 week after the abortive maneuver) and for the other post-operative care not honored.

This patient in addition was seropositive with deterioration of the general state on admission. This rate of two deaths which represent 16.16% of the present series is substantially identical to that of Lebeau 15%.<sup>1</sup>

This series shows that the time to treatment and the socioeconomic level are essential factors in the prognosis of this complication. Cisse and Ravolamanana we get the same conclusion.<sup>17,3</sup>

However, to reduce the waiting time for surgery, gynecological doctors should be trained in the management of simple and usual digestive lesions.

# CONCLUSION

The digestive lesions are a factor aggravating the prognosis of post-abortion uterine maneuvers. Their management must be rapid and requires close collaboration between the digestive surgeon and the gynecologist.

The prophylaxis of traumatic digestive lesions is similar to that of clandestine induced abortions (contraception, legislation on abortion).

Funding: No funding sources Conflict of interest: None declared Ethical approval: The study was approved by the Institutional Ethics Committee

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**Cite this article as:** Yao IN, Menin MM, N'Dri KJ, Oyelade MA, Saki CT, Okon G et al. Illegals abortions and utero-digestives lesions: retrospective study of 12 cases in the Department of Gynecology and Obstetrics at the Treichville teaching hospital (Abidjan, Cote D'ivoire). Int J Reprod Contracept Obstet Gynecol 2018;7:43-7.