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Patterns of Late Presentation of Septic Abortions at Makurdi, North-Central, Nigeria

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Abstract

Background: Unsafe abortion is frequent in our community and invariably; the majority of these cases become septic and present late at the hospital. We decided to study, among other things, the factors responsible for late presentations among these patients with the attendant frequency of complications and the outcome of management of these complications. Method: This was a prospective study that was conducted from January 2010 to June 2014 in the Gynae Unit of the Benue State University Teaching Hospital, Makurdi. All the patients who presented with complications of unsafe abortion were included in the study. Results: In the three and half years period of the study, the total Gynae admissions were 652. There were 82 cases of induced abortions which give an incidence of 12.5%. Age range of the patients was 17 - 48 years, with a mean of 29 years. More than half of the patients presented 2 to 3 weeks after the initial procedure 51 (62.2%), while only 10 (12.2%) presented within 1 week. The commonest reason for late presentation was the desire to maintain secrecy 54 (65.9%) though majority gave more than one reason 68 (82.9%). Majority of the patients were single, of low parity, belong to the lower socioeconomic group and were not using any form of contraception. Thirty-seven patients (45.1%) presented with severe genital sepsis while 29 patients (35.4%) presented with heavy vaginal bleeding due to incomplete abortion. Five patients (6.1%) presented in shock due to excessive bleeding while 4 (4.9%) patients had uterine perforation and intra-peritoneal haemorrhage. Two patients (2.4%) had gut injury following uterine perforation. Two patients (2.4%) developed uterine gangrene. There were also three cases (3.7%) of peritonitis due to pelvic abscess. The maternal motility in our study was 3 out of 82 cases (3.7%). Conclusion: Induced septic abortions are a significant cause of maternal morbidity and mortality. Improving accessibility to hospital care, increasing literacy rate in our female population and effective family planning, women empowerment and utilizing several resources to develop awareness of the hazards of induced abortions in the community will lead to a reduction in its incidence.

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Keywords

Unsafe Abortion, Septic Induced Abortion, Misoprostol, Haemorrhage, Anaemia, Post Abortion Care

Subject Areas: **Global Health, Gynecology & Obstetrics**

1. Introduction

An abortion that becomes complicated with infection is called a septic abortion and this complication is frequently associated with unsafe abortions. The World Health Organization defines unsafe abortion as a procedure for terminating a pregnancy that is performed by an individual lacking the necessary skills, or in an environment that does not conform to minimal medical standards, or both. Between 1995 and 2008, the rate of unsafe abortion worldwide remained essentially unchanged, at 14 abortions per 1000 women aged 18 to 45 years. But during the same period, the proportion of all abortions that were unsafe increased from 44% to 49% [1] [2].

Unplanned and unwanted pregnancies are major public health problems both for developed and developing countries. Women from all backgrounds seek abortions regardless of religious beliefs and fears of the dangers of the procedures. Majority of these women will attempt to maintain secrecy even when complications that threaten their very survival arise and this is due to the religious and cultural taboos associated with unwanted pregnancies.

Ninety five percent of all induced abortions occur in developing countries [2]. According to the WHO, 400 - 600 deaths/100,000 abortions occur in Asia and Africa as compared to 0.6/100,000 in developed countries. Ten to fifty percent of the females who undergo unsafe abortions develop serious complications like intra-abdominal injury, sepsis, haemorrhage and need for advanced medical and surgical care [3] [4].

The severity of the complications tends to get worse as the interval between the induced abortion and presentation to the hospital increases.

The causes of delays in presenting to hospitals for subsequent management are multifactorial and include need to maintain secrecy, financial constraints and lack of referral from the health care provider who performed the abortion in the first instance.

Induced septic abortions have significant negative consequences beyond its immediate effects on women's health. For example, complications from unsafe abortion may reduce women's productivity, increasing the economic burden on poor families; cause maternal deaths that leave children motherless; cause long-term health problems, such as infertility and may result in further strain on scarce medical resources especially in developing countries [2] [5].

2. Subjects and Methods

This study extends over a period of three and half years from January 2010 to June 2014 and was conducted in the Gynae Unit of the Benue State University Teaching Hospital, Makurdi, North Central, Nigeria. All the patients that presented with complications of unsafe abortion were included in the study. Detailed history was taken, followed by general physical examination with special emphasis on general state of health and severity of the anaemia. Temperature, pulse and blood pressure of each patient were recorded. Abdominal examination was performed and this was followed by detailed pelvic examination to assess the amount of bleeding, state of cervix, size of the uterus and the status of adnexa. Base line investigations included checking for blood group and Rhesus factor, complete blood count and differentials, random blood glucose level and urinalysis. Complete coagulation profile and renal function tests were also done in all the patients. Pelvic ultrasound was carried out to exclude retained products of conception and also to confirm presence of pelvic abscess. Endo cervical swab was taken for culture and sensitivity where appropriate.

Initial resuscitation included securing two intra-venous lines using wide bore cannulas where appropriate, adequate hydration and triple antibiotic cover (third generation cephalosporin and intravenous of metronidazole. (Gentamycin injections were added after the results of renal functions were available). Arrangements were made for blood transfusion and patients were prepared for surgery (emergency evacuation and curettage of the uterus)

but in some cases it also involved laparotomy for repair of uterine perforation, subtotal hysterectomy for gangrenous uterus, repair of intestines in cases of gut injury and drainage of pelvic abscess if present.

Post-operative care needed included intravenous antibiotic cover according to culture and sensitivity results and fresh blood transfusion to correct anaemia. Intensive care unit management was utilized for patients needing such treatment.

3. Results

Table 1. Profile of patients (n = 82).

Variable	No.	(%)
Age (years)		
15 - 30	49	59.8
31 - 40	27	32.9
41 - 50	6	7.3
Marital status		
Single	56	68.3
Married	26	31.7
Occupation		
Student	19	23.2
Apprentice/Trader	47	57.3
Unemployed/Housewives	16	19.5
Method used to induce abortion		
D/C	32	39.0
MVA	26	31.7
Insertion of various objects (iucd, laminaria tents, straw etc)	10	12.2
Use of various abortificients /Local concoctions	14	17.1
Socio-economic Status		
Lower Class	45	54.9
Middle Class	28	34.1
Upper Class	9	11

Table 2. Presentation.

Variable	No.	(%)
Average Interval between abortion and presentation at hospital (weeks)		
<1	10	12.2
1 - 2	15	17.1
2 - 3	51	62.2
>3	5	6.1
Reasons for delay in presenting to Hospital		
Reassured	20	
Need for secrecy	54	
Long distance from hospital	8	
Financial constraints	32	
Expecting problem to resolve	10	
Unco-operative or bad attitude of hospital staff	10	

NB: Majority of the patients 68 (82.9%) had more than one reason for presenting late at the hospital, such as been reassured by the primary care giver that thepatient does not require further treatment, need for secrecy and financial constraints.

Table 3. Presentation, management and complications.

Variable	No.	(%)
Mode of presentation		
Genital Sepsis	37	45.1
Excessive vaginal bleeding due to		
RPOC	29	35.4
Shock	5	6.1
Uterine perforation and intraperitoneal haemorrhage.	4	4.9
Uterine perforation and injury to small intestine.	2	2.4
Uterine gangrene	2	2.4
Pelvic abscess	3	3.7
Surgical procedure (% surgical procedures performed)		
Evacuation and curettage	29	72.5
Laparotomy (For repair of uterine Perforation, drainage of pelvic abscess, Repair of gut injury)	9	22.5
Hysterectomy (Subtotal)		
(Uterine gangrene)	2	5.0
Post-operative morbidity (n = 80)		
Need for 2 - 6 units of blood transfusion	42	52.5
Prolonged hospital stays due to fever		
(7 days - 3 weeks)	12	15
Post-operative wound infections	8	10
Deep vein thrombosis	1	1.25
Need for prolonged injectable		
Antibiotic cover	15	18.8
Acute renal failure	2	2.5

NB: RPOC-Retained products of conception, MVA-manual vacuum aspiration, D/C-dilatation and curettage.

4. Discussion

In developing countries, poor women have the least access to family planning services and the fewest resources to pay for safe abortion procedures; they are also the most likely to experience complications related to unsafe abortion [2] [6]-[8].

Most of these complications tend to get worse as the time interval between the initial abortion and when definitive treatment is sought become prolonged [7]. The majority of the patients in this study presented between two weeks to three weeks following the initial abortion. In studies from Jos and Sagamu, both in, Nigeria, majority presented within two weeks [6] [7], while the range extend from 1 day to 2 months in Ghana [5].

The main reason for this late presentation is an attempt to maintain secrecy in order to maintain family honour or even from threats from the abortionists who majority of the time, are health care practitioners, including doctors, nurses, auxiliaries, and community health extension workers [9] [10].

The severe morbidity and even mortality that result from these delays can be greatly reduced if health care providers who provide abortion services are encouraged to refer promptly cases that develop complications to centers were adequate and prompt treatment can be given.

Unsafe abortion has significant negative consequences beyond its immediate effects on women's health. For

example, complications from unsafe abortion may reduce women's productivity, increasing the economic burden on poor families; cause maternal deaths that leave children motherless; cause long-term health problems, such as infertility, chronic pelvic pain and frozen pelvis.

Worldwide, millions of women seek induced abortions which if successful and complete remain a secret and if complicated get highlighted due to their management at hospital level. The problem at the community level is much bigger and graver. It is a problem that puts an extra burden on an already over worked staff and limited resources of government hospitals. Septic induced abortion is an important cause of maternal morbidity and mortality and is completely preventable [9].

The frequency of induced abortions in our study is 3.6% which is similar to results obtained from studies in Jos, Sagamu and Ghana [5]-[7].

The major reason for late presentation is need to maintain secrecy [10]. In societies with liberalized abortion laws, the mortality and morbidity from unsafe abortions have reduced drastically [9]. In Nigeria, the abortion laws are very restrictive and prohibits abortion on demand [3] [4] [9]. Thus women who conceive when they are not prepared to have the babies resort to illegal and clandestine means to seek abortions.

As shown in **Table 1**, the lack of accessibility to centers where safe abortion services can be obtained, coupled with financial constraints also contribute to late presentation to hospitals where complications can be treated. Abortions on demand can only be procured in privately-owned hospitals which are invariably expensive and may not be easily affordable to the population of women who are at high risk of conceiving unwanted pregnancies (**Table 2**).

In our study, among patients who come from remote areas like villages, the main method used for termination of pregnancy was dilatation and curettage by untrained personnel, resulting in sepsis in the majority of cases. This is similar to results obtained from other studies within Nigeria but in other developing countries, haemorrhage was the main presenting symptom [10]. Genital sepsis can result in septicaemia and disseminated intravascular coagulopathy (DIC), especially in the presence of low resistance of the patient and high virulence of the organism s. Long term complications include chronic pelvic inflammatory disease, dyspareunia, dysmenorrhea and infertility. All these complications can occur as a of unplanned and unwanted pregnancy been terminated by untrained health workers working in substandard clinic settings with primary goal of maintaining secrecy [8]-[10] [20].

In our study it was noted that majority of the patients were young or middle aged, single, artisans and belong to the lower socio-economic group. These constitute the category of women who are more likely to conceive unwanted pregnancies, more likely to engage in unsafe abortion practices and to also delay in seeking expert care when they need arises.

The subset of the patients who present with complications of induced abortions usually have background anaemia, low body reserves due to malnutrition, do not practice any form of contraception and indulge in termination of pregnancy (TOP) as a method for birth spacing. It has been observed that people are concerned more about the side effects of different methods of contraception like insertion of intra-uterine contraceptive device, using injections or pills but refuse to understand the hazards of unsafe abortions by unskilled persons [10]-[12].

The process of abortion in Nigeria is considered sinful and the law also prohibits it but despite this, large numbers of abortions are conducted in the country irrespective of fear of procedure, legal implications and religious beliefs. This same situation is obtainable in many African countries [8] [9] [12]-[15].

Unwanted pregnancy is a significant public health problem both in developed and developing countries. Morbidity and mortality in developed countries is much less due to adequate medical facilities and liberalization of laws of abortion but in developing countries due to legal restrictions and religious beliefs women often engages the services of quacks to procure unsafe abortion which make them prone to high risk of haemorrhage, infection, trauma to genital tract and intestines [5] [8] [10].

Worldwide, millions of women conceive unwanted pregnancies the outcome of which will be affected by the age of the patient, the family size, the socioeconomic status and availability of abortion services. Influence of the rest of the family members especially of husband and in-laws is also strong. In our country government hospitals are the only source of safe medical care to the poor communities. Over worked staff do not welcome the patients seeking TOP for unplanned and unwanted pregnancies. When the law prohibits abortions, properly trained personnel will not be willing to perform it and such services will not be available in government hospitals. Attitude of the medical staff is also important in the short and long term management of such cases [9]. As shown in **Table 2**, poor attitude of medical staff to patients discourage them from coming to the hospital and this

in turn contribute to delay in seeking expert care.

Abortions can be self-induced. A patient who wants to get rid of unwanted pregnancy can use different methods, such as excessive physical activity and blows to abdominal wall. Different abortificients can also be used, either orally or vaginally. Vaginal douching with various chemicals like soapy solutions, inserting sharp objects into the cervix and uterus such as knitting needles has also been reported. Inappropriate use and excessive doses of misoprostol have been used in some cases with resultant complications such as excessive bleeding [16]-[19].

In our study it is noted that the commonest method used for unsafe abortion is dilatation and curettage, followed by insertion of various items including potash or corrosive materials and other local concoctions. Studies from other centers has shown that even IUCD, match sticks and cotton buds dipped in various chemicals and irritants can be inserted into the cervix all in an attempt to induce abortion [10]. It is in such cases that chronic pelvic inflammatory disease and subsequently infertility follows. When bleeding starts patients are brought to government hospitals for emergency management and evacuation of the uterus. Many of such cases go unnoticed as patients conceal the history of handling and just present with incomplete miscarriage [8] [21].

Morbidity of unsafe abortions include excessive bleeding, trauma to the genital tract and intestines and infections as shown in **Table 3**. Patients may also present in shock due to excessive haemorrhage. Infection can spread up to the limit of septicaemia and DIC. All these complications need efficient medical and surgical management in a center properly equipped and staffed. Intensive care management may be needed in critically ill patients [22].

5. Conclusions

This study has revealed that septic abortion following induced abortion is frequent in our community and majority of the patients present late to public hospital for management of complications.

It is recommended that public health education measures should be put in place to encourage women to seek safe abortion services while their dignity and confidentiality are adequately protected. The role of increased contraceptive uptake cannot be over emphasized. This will reduce the need for these women to resort to abortion due to unplanned and unwanted pregnancies.

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