FIVE YEAR REVIEW OF COMPLICATED INDUCED ABORTIONS IN UNIVERSITY OF BENIN TEACHING HOSPITAL, BENIN CITY

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SUMMARY

This is a retrospective study of 104 cases of complicated induced abortion, seen at the University of Benin over a 5 year period. One hundred and four cases constituting 3.93% of gynaecological admissions were studied. This represents 27.4 cases per 1000 live births.

The mean age of patients was 21.37 ± 5.7 years with almost 80% being between 16 and 25 years. About 90% of patients were nulliparae, unmarried and had at the most a secondary school education. Over 70% of the patients had at least a previous abortion.

The mean gestational age at abortion was 11.8 ± 4.7 weeks with almost two-thirds of the women having procured the abortion in the first trimester. Greater than 70% had dilatation and curettage or suction evacuation as the mode of abortion. A 'doctor' was the attending abortionist in a majority of the cases.

The major presenting features were vaginal bleeding, lower abdominal pain and vaginal discharge. The major indications for admission included incomplete abortion and post abortal sepsis. Close to a tenth of cases had abdominal visceral involvement. All the patients had antibiotic therapy, half had evacuation of retained products of conception, a fifth had laparotomy while about a sixth had blood transfusion.

Over 90% of the patients were discharged in stable condition. The case fatality rate was 4%. The major causes of death were sepsis with visceral injury and acute renal failure.

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INTRODUCTION

Over the years, women have sought and used various means to terminate unwanted pregnancies. This led to the concept of induced abortion which is the extraction of a pregnancy before the age of viability[1]. An abortus is generally regarded as a fetus weighing less than 500gm[1,2,3]. In Nigeria, it is regarded as a fetus whose gestational age is less than 28 weeks from the first day of the last menstrual period[4,5]. Induced abortions evoke tremendous emotions due to its cultural and religious connotations.

Reliable data on incidence of abortion and its complications is difficult to ascertain especially in areas with restrictive abortion laws[6,7]. It is estimated that about 26 – 53 million induced abortions are carried out annually worldwide[8] with 90% of these occurring in developing countries. Of these, an estimated 20 million are unsafe[9] especially in countries with illegal abortion laws. Nigeria has an abortion ratio of about 25 per 1000 women of reproductive age, with over 610,000 abortions estimated

to occur in the country annually[9].

Induced abortion is a cause of significant morbidity and mortality especially when unsafe[7]. Abortion is considered unsafe when carried out by a person lacking the necessary skills or in an environment lacking minimal medical standards or both[7,10]. It is estimated to cause nearly 70,000 maternal deaths worldwide (13 – 20% of maternal mortality) with over 90% occurring in developing countries[8]. It is estimated to account for 20 – 40% of maternal deaths in Nigeria[11,12,13] with a procedure related death rate of 680 per 100,000 abortions[14].

In Nigeria, the abortion law is restrictive hence women seek various means to terminate unwanted pregnancies. This has led to various complications commonest amongst which include haemorrhage, sepsis, uterine perforation, genital tract laceration, genital tract burns, vesico vaginal fistulae, shock and death[5,15]. Late complications include psychological feeling of guilt, ectopic gestation, uterine synechae, chronic pelvic pain and infertility[5,16].

Over time, more modern techniques have been introduced and used by physicians in inducing abortions. These include medical methods like mifepristone and prostaglandin use in early pregnancy termination. Surgical methods in use for early pregnancy termination include the use of vacuum aspiration and the traditional dilatation and curettage. The more modern technique have documented decreased risk of complications[17]. Despite the documented increasing safety of the procedure, many women have limited access to abortion services due to logistic and social obstacles[18]. Hence, complications are believed to still be rampant in our environment. These patients present in hospitals for treatment of these complications.

This study is designed therefore to determine the rate of abortion complications seen at the University of Benin Teaching Hospital, Benin City, Nigeria over a 5-year period. It also assesses the mode of presentation, types of complication, mode of termination of pregnancy and its effect on presentation, impact of health care personnel involvement and the eventual outcome. It is hoped that this will form a baseline for further strategies aimed at stemming the ugly incidence of complications associated with induced abortions.

AIMS AND OBJECTIVES

1. To determine the incidence of complicated induced abortions as seen in U.B.T.H.
2. To determine the demographic characteristics and clinical presentation of the patients presenting with complicated induced abortions in UBTH.
3. To appraise the mode of management of this condition in UBTH and the effect on maternal mortality.

MATERIALS AND METHODS

This is a retrospective descriptive study, spanning a period of 5 years, of all cases of complicated induced abortions admitted at the University of Benin Teaching Hospital, Benin City between January 1st 1996 and December 31st 2002 excluding the period January 1st 1999 and December 31st 2000. The case files for the excluded periods were not available.

The records in the gynaecological ward were assessed to obtain the case file numbers of the affected patients.

The files were subsequently retrieved and relevant data relating to the socio-demographic profile of the patients, clinical presentation, mode of termination of pregnancy, types of complication and management instituted and short term outcome were extracted manually.

RESULTS

Of the 104 case files sought, 96 were obtained and analysed, giving a percentage of 92.3%.

During the period January 1 1996 to December 31 2002 (excluding January 1 1998 to December 31 1999), a total of 2644 patients were admitted into the gynaecological ward. Of these, 104 were admitted with complicated induced abortion constituting 3.93% of gynaecological admissions.

During the period also, there was a total of 3800 live deliveries giving a complicated abortion rate of 27.4 per 1000 live births.

TABLE 1: Distribution of complicated induced abortions

	1996	1997	1998	2001	2002
Number of complicated abortions	21	21	22	15	17
Number of admissions to the gynaecological ward	380	504	500	540	720
Number of live births	700	655	620	678	1150
Percentage of gynaecological admissions	5.53%	4.17%	4.40%	2.78%	2.36%
Rate of complicated abortions per 1000 live births	30	32.1	35.48	22.12	14.78

AGE

The age range of the patients was 14 – 43 years with a mean of 21.37 ± 5.7 years and a modal age of 19 years.

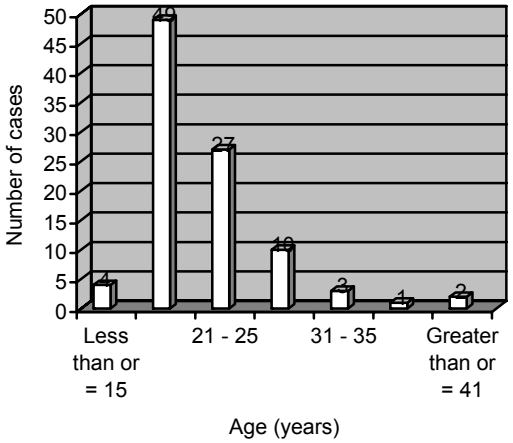

Fig. 1: Showing the age distribution of cases of complicated induced abortions

Table II: Sociodemographic characteristics of patients with complicated induced abortions

Parity	0	1	More than 1
Number/ Percentage	85/88.54%	4/4.17 %	6/6.25%
Marital Status	Unmarried	Married	
Number/ Percentage	87/90.63%	9/9.38%	
Educational status	Primary or below	Secondary	Tertiary
Number/ Percentage	22/22.91%	70/872.91%	4/4.17%

SKILL OF ATTENDING ABORTION SERVICE PROVIDER

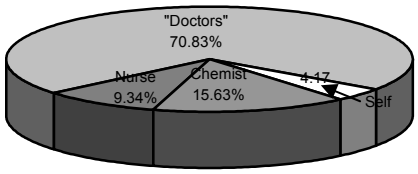

Fig. 2: The relative percentages of attending abortion service providers

Methods used in procuring abortion

Dilatation and curettage/suction curettage was the method used in 72% of cases, rupture of membrane and oxytocin infusion in 18% while other drugs like misoprostol and native herbs were used in about 10% of cases.

Gestational age at procurement of abortion

The gestational age at procurement of abortion ranged from 5 weeks to 25 weeks with a mean gestational age of 11.8 ± 4.7 weeks. 62(64.58%) of the cases had procured the abortion in the first trimester while 34 (35.12%) had theirs in the 2nd trimester.

SYMPTOMATOLOGY

Table II shows the leading symptoms to include vaginal bleeding, lower abdominal pains, vaginal discharge, abdominal distension and fever.

Table III: Showing the incidence of presenting signs and symptoms

Signs/ Symptoms	Number of patients	Percentage of patients
Vaginal bleeding	61	63.54
Lower abdominal pain	57	59.38
Vaginal discharge	26	27.08
Abdominal swelling	17	17.71
Fever	16	16.67
Anaemia	12	12.50
Hypotension/Shock	5	5.21
Oliguria/Anuria	5	5.21
Vomiting	4	4.17
Constipation/Diarrhoea	4	4.17
Jaundice	3	3.13
Urinary incontinence	1	1.04

Previous termination of pregnancies

Analysis of the results showed that 26(27.08%) of patients had no previous termination of pregnancy, 38(39.58%) had 1 previous termination of pregnancy while 31(32.29%) had had 2 or more previous pregnancy terminations.

Definitive diagnosis

The definitive diagnosis was arrived at following clinical evaluation, investigations and occasionally following surgery.

The percentages and number of cases with their respective diagnosis are as shown in able III.

Table IV: Definitive diagnosis of patients admitted for complicated induced abortion.

Diagnosis	Number	Percentage
Retained products	38	39.54
Post abortal sepsis	27	28.13
Visceral perforation	7	7.29
Genital laceration	5	5.21
Acute renal failure	5	5.21
Abdomino pelvic abscess	5	5.21
Ectopic gestation	4	4.17
Choriocarcinoma	2	2.13
Cervical fibroid	1	1.04
Chemical burn of vagina	1	1.04
Unknown[#]	1	1.04

[#] Died within 4 hours of admission

Treatment Received

The admitted patients received treatment ranging from antibiotics for post abortal sepsis to laparatomy and even renal dialysis. It is important to note that all the patients had antibiotic therapy.

The analysis of the treatment is shown in table V.

Table V: Distribution of treatment offered to patients admitted for complicated induced abortion

Treatment received	Number	Percentage
Evacuation of retained products	42	43.75
Antibiotics only	27	29.17
Blood transfusion	14	14.59
Laparotomy[a]	18	18.73
Examination under anaesthesia ± repair of genital laceration	7	7.29
Renal dialysis	3	3.16
Others[b]	4	4.17

[a] This includes laparotomy in a varied combination with drainage of abscess (6), repair of uterine perforation (5), repair of intestinal perforation (5), and colostomy (4).

[b] Includes: died before treatment (1), Prolonged catheterization (1), Vaginal oestrogen cream application (1), and discharge against medical advice (1).

Outcome of treatment

Ninety (93.75%) of the patients were discharged home improved, 2 discharged against medical advice, 2 were referred for dialysis and there were 4 mortalities.

Mortalities

1. Died within 4 hours of admission before definitive management.
2. Intraoperative death at laparatomy for severe sepsis.
3. Died of renal failure following septicaemia.
4. Septic shock.

DISCUSSION

One hundred and four patients with complicated induced abortion were admitted over the 5 year period – about 21 patients per year. The incidence was 27.4 per 1000 live births and 3.93% of gynaecological admissions. This is much lower than the finding in a similar study done in this centre 14 years ago[19]. This may be attributed to the presence of more alternative specialist clinics and private hospitals that offer care to the complicated cases or even to a decreased incidence of complications as abortionists acquire greater proficiency. The figure is also significantly less than the rate of 100 – 140/1000 live births abortion rate estimates for the community[9]. This is obvious as only complicated cases are seen in this centre. Table 1 suggests a decreasing incidence especially so in the more recent years.

The age range of 14 – 43 years, mean age of 21.37 years and a modal age of 19 years with a large preponderance in the teenage group is in agreement with several studies[20,21,22]. Previous studies also support the finding of a majority of patients being nulliparae, unmarried and of primary or secondary educational status[21,22,23,24].

'Doctors' were involved in over 70% of the cases. This is not unexpected as the general awareness in the community increases coupled with the increased number of medical schools training a far larger number of medical doctors. Despite this, the restrictive policy and legal constraints prevent adequate training of doctors during their undergraduate and postgraduate years on proper procedures for terminating unwanted pregnancies. A survey showed that 35% of women who had abortions performed by doctors had mild to moderate complications[24]. A study at Ibadan showed that physicians contributed 67% of fatalities from induced abortions[25]. On the other hand, most abortion service providers are referred to as doctors irrespective of their professional qualifications. This is so as patients are sometimes unable to make the distinction between the various providers.

With over 60% of the abortions being in the first trimester, it is no surprise then that greater than 70% of cases were done by dilatation and curettage which also supports previous findings on the subject[9,19]. The fact too that over 70% of these patients had had at least one previous termination of pregnancy may not be unexpected as studies have shown that despite the increasing rate of sexual activity amongst adolescents, there is a low rate of contraceptive use in our environment[26]. In addition, many of our women use abortions as means of contraception[24].

The finding that vaginal bleeding, lower abdominal pain and vaginal discharge were the major clinical presentations of the patients is comparable to previous findings[22,23].

There is significant corroboration of these with the predominant definitive diagnoses of retained products and post abortal sepsis, also in consonance with previous findings[22,23,26]. These too align with the observation that antibiotic therapy and evacuation of retained products of conception formed the majority of treatment received.

Of particular interest in the mode of treatment received is the large contribution by laparotomy and blood transfusion[21]. These definitely put strain on the hospital's personnel, drug and other resources. With the present HIV/AIDS scourge, the long-term effects in less endowed centres are better imagined. Renal dialysis also formed a significant mode of treatment. The UBTH renal dialysis centre was opened in 1999 hence paved way for local access to this very important treatment modality. Before this time, patients were referred to other centres for renal dialysis.

There is no gainsaying the fact that complicated induced abortions contribute significantly to the huge maternal morbidity and mortality burden of developing countries[20,22,23,27]. Severe sepsis with abdominal visceral injury, renal failure and late presentation were among the commonest contributing factors to maternal mortality as also reported in other studies[13,23,27].

RECOMMENDATIONS

In the light of the above, one cannot help but align with the need for properly organised and conducted sexual and reproductive health education for all women especially for the teenage and unmarried sexually active population. These formed the majority of patients in this study.

There is need to further well co-ordinated campaigns against adolescent and unprotected sexual activity and unwanted pregnancies. Abstinence remains the surest protection against these. Nevertheless adequate and effective contraceptive technique with emphasis on barrier methods should be advocated for those for whom abstinence may be farfetched.

Adequate antibiotic cover following induced abortions and the need for blood banking services in our hospitals need also be stressed.

There is need for continuing medical education for doctors who are favourably disposed to induced abortions.

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