Subsequent Reproductive Performance in Survivors of Complicated Abortion

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Abstract

Objective

To study the subsequent reproductive performance of women who had undergone complicated abortions.

Materials and Methods

Attempts were made to trace 299 survivors of complicated abortions from an earlier study. Their contact telephone numbers and addresses had been recorded at the time of initial management. Only 237 (79.3%) were traced. Questionnaires were administered bordering on their gynecological and obstetric histories since the antecedent complicated abortions. The results were then analyzed.

Results

Only 237 (79.3%) subjects were available to complete the questionnaires. There was a total of 49 pregnancies (20.7%), 21 (8.9%) of which resulted in 6 preterm and 15 term deliveries, 11 (4.6%) induced abortions and 17 (7.2%) spontaneous abortions. There were 2 cases of ectopic pregnancies. There were no striking antenatal complications. 14 cases had spontaneous vertex deliveries while 5 had caesarian sections while 2 had forceps deliveries. There were 2 cases of postpartum hemorrhage. 103 (44%) of the subjects who still desired pregnancy were yet unable to conceive.

Conclusions

The subsequent reproductive performance in survivors of complicated abortion appears to be largely characterized by a high rate of sub-fertility, fetal wastage and preterm deliveries.

Key words: *abortion, reproduction, fertility, complication, survivors*

Introduction

Unsafe abortion remains a neglected health care problem in developing countries. It is characterized by the inadequacy of skilled personnel and use of hazardous techniques and unsanitary facilities[1]. It has been estimated that 40% of pregnancies worldwide are unplanned[2] and are the result of ineffective or non-use of contraception. Many married women in developing countries do not have access to the contraceptive methods of their choice.[3,4,5] The situation is even more difficult for unmarried women, particularly adolescents, who rarely have access to information and counseling on sexual and reproductive health and are frequently excluded from contraceptive services.

The outcome of complications of unsafe abortion depends not only on the availability and quality of post-abortion care, but also on women's willingness to turn to medical services and the readiness of medical staff to deal promptly with the complications.

Every year, there are 65,000 to 70,000 deaths and close to five million women with temporary or permanent disability due to unsafe abortion[1]. Of these, more than 3 million suffer from the effects of reproductive tract infection and almost 1.7 million will develop secondary infertility. Altogether, some 24 million women suffer secondary infertility caused by unsafe abortion .[6]

Reproductive performance after pregnancy termination has been extensively studied.[7,8,9,10,11] In most of these studies emphasis was placed on the method used for termination. The conclusions ranged from no significant risk of infertility and ectopic pregnancy[7,11] to premature delivery and low birth weight following dilatation and evacuation.[11]

Apart from a few references to women who had complications in some of these studies, there are no specific studies found in literature on reproductive performance or fecundity in women who had abortion complications.

This study is part of a larger ongoing study on unsafe abortion at the Department of Obstetrics and Gynecology, Lagos State University Teaching Hospital, Ikeja, Lagos, Nigeria. It was specifically designed to look at the subsequent reproductive performance of the group of patients who survived complications of abortions after being managed in our facility.

Materials and Method

All cases of complicated induced abortions referred to the Emergency Unit of the Obstetrics and Gynecology Department, Lagos State University Teaching Hospital, Ikeja, Lagos, Nigeria between 1st January 2000 and 31st December 2003 were included in a large unsafe abortion study. This particular study focused on the women that survived after being

managed for various types of post-abortal complications in our facility. On discharge, all the women had post abortion counselling which emphasized contraception in order to avoid unwanted pregnancies which may lead to unsafe abortion(s) in future. They were also counselled on being recruited into a follow up study after about three years. Their contact addresses and cell-phone numbers were obtained and stored. They were seen in the gynecology clinic over a variable length of time depending on how well they had recuperated. After discharge from the clinic, contact was maintained with them using trained research assistants. The assistants called them at intervals to inquire about their well being. The actual study period was from January 2003 to March 2007 during which the research assistants maintained contact with the women by telephone, ensuring that the time of contact was about three years after their discharge from hospital. Some questions pertaining to their reproductive histories were asked and filled into questionnaire forms designed for that purpose. The women who could not be reached on the telephone were traced to their given addresses where the questionnaires were administered.
The responses were then analyzed using simple statistical methods.

Results

There were 299 survivors of complicated abortion in this series. Only 237 (79.3%) were recruited into this study. Table 1 shows the number and percentage yield of women across age ranges, parity, marital status and occupation. There was a fairly even yield. The adolescents (15-19 years) and divorcees had the lowest rates of 60.7% and 50.0% respectively.
There was a total of 49 pregnancies (20.7%). 21 pregnancies ended in 6 preterm and 15 term deliveries while 28 ended in 11 induced and 17 spontaneous abortions.
Table 2 shows the frequency of the deliveries and abortions (spontaneous and induced) according to age, parity, marital status and occupation. Most of the deliveries occurred in the 20 to 29 years age range (85.7%); in women of low parity (76.1%); in married women (81%); and among civil servants and traders (81%). None of the women who was divorced, over 40 years of age and of relatively higher parity (Para 4) had any delivery.
There were 11 (4.6%) induced abortions and 17 (7.2%) spontaneous abortions. Most of the cases of induced abortions (72.7%) occurred in the 15 to 19 years age range. None of the women aged 30 to 40 years had undergone an induced abortion. Most of the spontaneous abortions (70.6%) occurred in the age range 20 to 29 years. Among the 11 women who had induced abortions, the singles had the highest frequency (45.5%) when compared to the

married women (36.4%) and the divorced (18.2%). Of the 17 women who had spontaneous abortions, the married women had the highest frequency (64.7%) compared to the singles 29.4%) and the divorced (5.9%). Most of the induced abortions (81.8%) were performed before 12 weeks gestation (Table 3). Mid trimester abortions constituted 54% of all abortions (Table3).

There were 2 ectopic pregnancies. There were no striking antenatal complications. 14 cases had spontaneous vertex deliveries, 5 had Caesarian sections and 2 had forceps deliveries. There were 2 cases of postpartum hemorrhage.

A higher percentage of the married women (72%) still desired pregnancy compared to the single women (27.1%) and the divorcees (33.3%). (Table 4)

103 (83.1%) of the subjects who still desired pregnancy were yet unable to conceive.

Discussion

Reproductive performance following complications of unsafe abortion should be of research interest especially in Sub Saharan Africa where the severity of complications is of a higher order than in developed countries. Immediate and long term complications such as retained products of conception, genital sepsis, hemorrhage, pelvic infection with peritonitis and abscess formation, uterine perforation, bowel injury, intrauterine adhesions, chronic pelvic inflammatory disease, cervical incompetence and infertility have been documented in many studies from within and outside Nigeria. [10,12,13,14,15,16] The rather restrictive abortion laws in Nigeria,[17] as well as the very low frequency of contraception[14,16,18,19] lead to clandestine performance of pregnancy terminations at relatively advanced stages. In addition, most induced abortions are performed by different cadres of health personnel, [20, 21] most of whom are unskilled, leading to a high rate of complications.

Earlier studies on the reproductive performance of women after induced abortion showed fairly consistent findings.[7,8,9,10,11] The very early series concluded that induced abortions, whether in the first or the second trimester, seemed not to have any effect on future fertility. The point was however made that in cases complicated by pelvic infection and leading to pelvic inflammatory disease, the situation may be different.[8,11,22] Higher incidences of miscarriages, premature delivery, low birth weight babies and abnormal placentation were documented in the more recent series.[9, 23]

This study specifically looked at the reproductive performance in selected women, three years after they had been managed for complications of unsafe (induced) abortions.

More than a fifth of the women could not be traced. This number was quite high compared with 9.3% in a previous study[9]. It was not surprising as some of the women in this study might have changed their telephone numbers, relocated from their addresses or even travelled out of the country.

Comparative analysis of the some of the findings of this study with those from other studies was hindered by the paucity of data on survivors of complicated abortions.

The pregnancy rate in this study, in relation to the number of respondents who desired pregnancy appeared to be low. In this study, 83.1% of women who still desired pregnancy were unable to conceive after three years of the abortion. In a series that studied the impact of mid-trimester abortion on future fertility, 97% of women who desired fertility conceived after treatment.[9] Considering the nature of some infective complications for which the women in our series were treated, severe post abortal sepsis is a recurring factor which will invariably impair future fertility.[14, 24]

It is remarkable that in this series, some of the women who had earlier experienced complications of unsafe abortion still chose to terminate pregnancies. This reflects negatively on the expected impact of the post abortion counseling offered to these women.

In a study that assessed the impact of post abortion counseling, the percentage of women using contraceptives increased and the number of women with multiple sexual partners reduced[25]. Post abortion counseling still remains a veritable tool to increase contraceptive use and influence behavioral changes positively towards health promoting measures.[25] The higher incidence of induced abortions (72.7%) in the adolescents aged 15 to 19 years and the total exclusion of those in the 30 to 40 years age range is consistent with the vastly documented findings of risky sexual behavior, non-utilization of contraceptive services and quick resort to pregnancy termination in the adolescents.[24, 26, 27]

On the positive side, it is instructive to note that in these previous sufferers from complicated abortions who got pregnant and chose to have pregnancy terminations, most of them (81.8%) had such terminations before twelve weeks gestation. This may suggest that they had learnt some lessons from their previous experiences.

In this series, there was a relatively high incidence of spontaneous abortions both in the first and second trimesters with the latter constituting 54% of all spontaneous abortions. This finding was consistent with those in earlier studies involving women that had induced abortions.[8, 9] However, other studies were unable to demonstrate any association between previous induced abortions and subsequent episodes of spontaneous abortions.[11, 22] There is a need to expand the scope of our study to include ascertaining the method used for procuring

abortion and relating it with subsequent reproductive performance. In the review by Hoque in 1986, a clear distinction was made between the women who had termination by vacuum aspiration and those that had dilatation and curettage with the conclusion that the latter has an increased risk of mid-trimester spontaneous abortions[8] in subsequent pregnancies.

In the absence of the delivery records of most of the women, it was difficult to ascertain the indications for operative deliveries and whether they had any relationship with the antecedent abortion complications.

A high rate of infertility, fetal wastage and preterm deliveries appear to be associated with the women who had suffered post-abortal complications in this series.

Conclusions and Recommendations

It is suggested that relevant policies and programs that will entrench post abortion care services, especially counseling and contraception should be put in place. In addition, women with a previous history of complications of abortion should be encouraged to have their subsequent pregnancies supervised.

Future research should aim at identifying the various complications in order to assess their specific contributions to adverse reproductive outcomes. The methods used to procure abortion leading to complications should be individually studied.[28]

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TABLE 1:

Number and Percentage Yield of Women across Age Ranges, Parity, Marital Status and Occupation

PARAMETER	TOTAL NO	NUMBER CONTACTED	% YIELD
AGE RANGE			
15 – 19	61	37	60.7
20 – 29	206	174	84.5
30 – 39	32	26	81.3
> 40	0	0	0
PARITY			
0	86	64	74.4
1	54	44	81.5
2	36	21	58.3
3	46	39	84.8
4	77	69	89.6
MARITAL STATUS			
Married	102	92	90.2
Single	183	138	75.4
Divorced	14	7	50.0
OCCUPATION			
Students	91	73	80.2
Civil Servants	103	83	80.6
Traders	75	57	76.0
Artisans	9	6	66.7
Applicants	21	18	85.7

TABLE II:

Frequency of Deliveries, Induced and Spontaneous Abortions according to Age Ranges, Parity, Marital Status and Occupation

	DELIVERIES		INDUCED ABORTIONS		SPONTANEOUS ABORTIONS	
	NO	%	NO	%	NO	%
AGE RANGE						
15 – 19	1	4.8	8	72.7	0	0
20 – 29	18	85.7	3	27.3	12	70.6
30 – 39	2	9.5	0	0	4	23.5
> 40	0	0	0	0	1	5.9
PARITY						
0	8	38.1	8	72.7	3	17.7
1	4	19.0	1	9.1	5	29.4
2	4	19.0	1	9.1	8	47.1
3	5	23.8	1	9.1	1	5.9
4	0	0	0	0	0	0
MARITAL STATUS						
Married	17	81.0	4	36.4	11	64.7
Single	4	19.0	5	45.5	5	29.4
Divorced	0	0	2	18.2	1	5.9
OCCUPATION						
Students	1	4.8	6	54.6	2	11.8
Civil Servants	9	42.9	2	18.2	6	35.3
Traders	8	38.1	1	9.1	5	29.4
Artisans	2	9.5	1	9.1	3	17.7
Applicants	1	4.8	1	9.1	1	5.9

TABLE III:

Gestational Ages at Induced and Spontaneous Abortions

DURATION (weeks)				
	INDUCED		**SPONTANEOUS**	
	NO	**%**	**NO**	**%**
< 6	5	45.5	4	23.5
7 – 12	24	36.4	4	23.5
13 – 18	0	18.2	6	35.3
19 – 24	0	0	3	17.7
25 - 28	0	0	0	0

TABLE IV

Desire for and Achievement of Pregnancy among Single, Married and Divorced Women

	TOTAL NO	**STILL DESIRE PREGNANCY**		**ACHIEVED PREGNANCY**		**STILL SUBFRTILE**	
		NO	%	NO	%	NO	%
MARRIED	132	95	72.0	17	17.9	78	82.1
SINGLE	96	26	27.1	4	15.4	22	84.6
DIVORCED	9	3	33.3	0	0	3	100