Original Article

Implementation of postabortion care (PAC) services in three states in eastern Sudan 2009 - 2010

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Abstract:-

Objectives: This is an observational study done in three states in eastern Sudan, Red sea, Kassala and Gadarif states. It was conducted to determine number of patients presented for PAC, their socio-demographic characteristics and medical treatment they received.

Methodology: The study was carried in nine hospitals, in three states in eastern part of Sudan. Training of health care providers was done before embarking on the study together with renovation of health care centers. Patients presented for PAC, were included in the study after an informed consent, during 2009- 2010. Data was collected by trained group of registrars in obstetrics and gynecology department.

Results: The study showed that, 3762 patients were admitted for PAC services during study period, accounting for 11.9% of the total hospitals admission, 3740 enrolled in the study. Abortion cases were classified as spontaneous 3463 (92.6%), while 277 (7.4%) were induced. Evacuation was done for 3548 (94.9%), the rest were spontaneous complete abortion, received uterotonics and antibiotics. Sharp curettage was done for 3065 (86.3%), manual vacuum aspiration-MVA, for 414 (11.7%) and 69 cases (2.0%) received misoprostol. Counseling and family planning provided to 301 cases (8.0%). Pregnancy was intentional and wanted in 2647 cases (70.8%), wanted but unplanned in 553 (14.8%), and unwanted in 540 cases (14.4%).

Conclusion: Miscarriage (abortion) is prevalent even within desired pregnancy. Sharp curettage is still the method of practice. Family planning is not well integrated within PAC services. Health care providers need to know, practice and maintain full package of PAC.

Keywords: Miscarriage, abortion, MVA, evacuation, uterotonics, curettage.

Abortion or miscarriage is a common complication of pregnancy. Its incidence varies from 10-25%. All over the world, 46 million abort each year, 20 million were unsafe. WH0 estimates that 15% of pregnancy related morbidity is due to abortion[1]. Worldwide, unsafe abortion, accounts for 13% of pregnancy related deaths, with 95% occurring in low resource countries[2]. Data regarding death from abortion are usually under reported, due to poor auditing of maternal death or poor registration system.

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Abortion may lead to mother death or permanent morbidity, particularly, when it is unsafe or illegal. For every women dies from abortion, safe or unsafe, many suffer number of complications, including, infection, chronic pelvic pain, subfertlity and psychological trauma. This morbidity and mortality is almost wholly preventable, through existing recourses[3].

Post abortion care is an approach for reducing morbidity and mortality from incomplete, unsafe abortion and resulting complications. Comprehensive postabortion care services should include both curative and preventive health care. These include, emergency treatment of incomplete abortion and its potentially life threatening complications, together with postabortion family planning counseling and services, as well as link to reproductive health system, e.g. sexually transmitted infections (STIs),

voluntary counseling and testing (VCT) for human immune- deficiency virus (HIV), screening for carcinoma of the cervix or management of recurrent miscarriage[4].

In Sudan, the exact prevalence of abortion is unknown; however, it is reported as 11.0% in safe motherhood survey (SMS) 1999, and 9.9% in Sudan house hold survey (SHHS) 2006[5, 6]. Level of unsafe abortion is not well documented, because, it is not without litigation[5]. Sudan laws for abortion (135-138) are restrictive to induction of abortion. It is justified if pregnancy endanger woman's life, or it is missed abortion or a result of an officially documented rape, less than ninety days and the woman asked for termination. The conventional method [sharp curettage (SC)], is still the method of practice for evacuation of products of conception. It is usually provided at emergency gynecological department for free. It is done by house officers, and registrars. Manual vacuum aspiration (MVA) and medical treatment with misoprostol are still not the procedures of choice. Training and implementation of MVA and misoprostol has been done, however, implementation and supplies of MVA and misoprostol are not well sustained. Misoprostol is now registered to be used for prevention of postpartum hemorrhage (PPH), induction of missed abortion and management of inevitable and incomplete abortion, but it is not easily attainable. This study aims at assessing PAC services in three target states in eastern part of Sudan, Red sea, Kassala and Gadarif, 2009- 2010, to determine rates of miscarriage, method of evacuation, induced abortion, its complication and related socio-demographic factors.

Methodology:

The implementation of international federation of obstetricians and gynecologists (FIGO) initiative for reducing maternal mortality and morbidity from unsafe abortion, strengthened the partnership between federal ministry of health (FMOH), reproductive health department (RHD), Sudanese society of obstetricians and gynecologist (SSOG), DKT, united nations population fund (UNFPA) and states' ministries of health(SMOH) for improving the management of abortion and its complication. A pilot project for PAC was launched in three states from first of January 2009- 31st of December 2010. Nine centers were selected, in three states, Red sea, Kassala and Gadarif. Health care services in these centers were carried by obstetricians, registrars and medical officers in the three states. Training manual and a pocket handbook were prepared addressing, emergency treatment of incomplete abortion and its complications using MVA, counseling and providing of family planning, and infection prevention. Training of trainers (TOT) courses, conducted and three core teams were established in the three states, five obstetricians for each state. One hundred and eighty health care providers, obstetricians, registrars, and medical officers, were trained. Equipment and supplies for PAC and blood transfusion availed in the targeted facilities, by national reproductive health program (NRHP), national blood bank unit (NBBU), states ministry of health (SMOH), UNFPA and DKT. All drugs needed for PAC, availed by SMOH. A sensitization workshop on the effect of PAC in maternal mortality reduction conducted for media personnel. Information, education and communications (IEC) material developed addressing various issues related to PAC and maternal mortality. All patients admitted for PAC were included in this study after an informed consent. Those who refused to be enrolled in the study were excluded, without affecting services they received. Evaluation workshop conducted at the level of FMOH, SMOH, Sudanese society of obstetricians and gynecologist (OGSSD) and clinicians involved in PAC implementation, to evaluate progress achieved, lessons learned, share experiences, and way forward.

Results:

Socio-Demographic Characteristics:-

The study showed that, 3762 women were admitted for PAC services, accounting to 11.9% of the total admission in obstetrics and gynecology wards in the three states. Twenty two cases were excluded, 3740 were enrolled

in the study. Most of them, 3668 (98.1%) were married; 72 cases (1.9%) were either unmarried, separated or widows (table 1).

Table 1: Distribution of women received PAC services, according to Marital status

Marital status of the patient	number	%
Married	3668	98.1%
Unmarried	0057	01.5%
separated(divorced)	0008	00.2%
Widow	0007	00.2%
Total	3740	100%

They are mainly house wives, 3304 (88.4%), 436 (11.6%) were either employees, laborers or professional. One thousand, seven hundred and fifty three (46.9%) were illiterate, 1756 (46.9%) at primary or secondary school and 231 (06.2%) were university students or graduates. Age group 20- 40 years constitutes 3255 (87.1%), 372 (9.9%) were teenagers, and 113 (3.0%) were elder than forty year of age. The majority of cases, 2658 (71.1%) were multiparous and 1082 (28.9%) were primigravidae.

PAC services:

Abortion (miscarriage) was spontaneous in 3463 (92.6%), only 277 (7.4%) were induced. First trimesteric abortion constituted 2353 (62.9%), 1267 (33.9%) aborted during second trimester and only 120 (3.2%) aborted in the third trimester. Vaginal bleeding was the commonest shared symptom in 3609 (96.5%), other associated symptoms include, abdominal pain 1277 (31.1%), expulsion of tissue products 961 (25.7%), fever in 142 cases (03.8%) and smelly vaginal discharge 138 (3.7%). Evacuation of the uterus was done for 3548 (94.9%), while 192 (5.1%) were spontaneous complete abortion and received antibiotics and uterotonics. Sharp curettage (SC), under general anesthesia, was done for 3065 (86.3%), Manual Vacuum Aspiration (MVA), for 414 (11.7%) and misoprostol for 69 cases (2.0%). Most of cases, 3358 (89.8%), were smooth uncomplicated, while 262 cases (7.0%) presented with hemorrhagic shock and were transfused, 101 case (2.7%) with sepsis, twelve cases (0.3%) developed uterine perforation following manipulations or treatment and seven maternal deaths (0.2%). Case fatality was two in every 1000. Counseling and family planning provided to 301 (8.0%), 3439 (92.0%) were discharged without family planning. Combined oral contraceptives (COC) were the commonly used method in 256 (85.1%). Progestogen pills only and intra-uterine contraceptive device (IUCD) were 19 (6.3%) and seven cases (2.3%) provided depoprovera. The pregnancy was classified as wanted (intentional) in 2647 (70.8%), 553(14.8%) were wanted, but unplanned or unexpected and 540 cases (14.4%) were unwanted.

Induced abortion and its complications:

Two hundred and seventy seven cases (7.4%) were induced abortion. Two hundreds and fourteen cases (77.2%) were induced by doctors (house officers, medical officers, registrars or specialists). Thirty nine cases (14.1%) were induced by traditional healers and twenty four cases (8.7%) by midwives or nurses. Misoprostol was used for induction of abortion in 186 cases (67.2%), 91 cases (32.8%) were induced by manipulation with foreign body, trauma or herbal medicines (table 2).

Table 2: Distribution of induced abortion, according to method of induction.

Induction of abortion	No	%
Drugs (misoprostol)	186	67.2
Manipulation-foreign body	068	24.5
Trauma to the abdomen	016	05.8
Herbal medicine	007	02.5
Total	277	100%

Discussion:

Both spontaneous and induced abortion can be unsafe and can lead to maternal mortality and morbidity. PAC aims at reducing maternal mortality and morbidity, improving women reproductive health and

lives. It consists of a series of medical and related intervention to manage spontaneous and induced abortion, whether it is safe or unsafe. In this study, level of PAC, 11.9% is relatively low, compared to WHO figures [1]. However, it is consistent with that found by SMS 1990 (11.0%), SHHS 2006 (9.9%) and in Nepal 2004 (10%) [5-7]. Nearly half of pregnancies among American women are unintended, and 40% of these are terminated by abortion[8].

A key finding in this study, revealed on average one / ten cases (9.9%), were adolescent (age 15-19 years). This is expected, since half of the girls are married around 18 years of age[5, 9]. In comparison to eighteen percent of women in United States undergoing abortion are teenagers[8]. Illiteracy is high (46.9%) among participants 1753; which may affects utilization of family planning, leading to high unmet need and eventually unintended and unwanted pregnancy. However, unwanted (14.4%) and unplanned pregnancy (14.8%) in this study are still high, which reflects the unmet need for family planning. Unintended pregnancy is the root access for induced abortion, legal or illegal[8].

In this study, sharp curettage (SC), under general anesthesia, was done for 86.3%, MVA for 11.7% and misoprostol for 2.0%. This level of MVA utilization is low compared to the 50% level in Ethiopia and the 38.3% in Nepal[9, 10]. To meet the United Nations MDG5, reducing the 1990 maternal mortality by 75% before 2015, new interventions should be considered to address the need for better postabortion care. Surgical methods are highly effective for the treatment of incomplete abortion; however, their safe use requires trained personnel, special equipments and general anesthesia, which are limited in low resource settings[4]. MVA has the lower rates of complications, not commonly associated with uterine perforation. It improves quality of PAC and reduces the waiting time before operation and recovery time after the procedure. It also, reduces the use of operating theater and hospital beds, hospital crowding and delays in treatment[11]. This low level of MVA is due to shortage in MVA, or lack of adherence of health care providers to new protocols and guidelines for postabortion management or rapid turnover of trained personnel. This is a real health problem in rural areas in Sudan. Sustainable supply of MVA will remain a challenging goal for implementing MVA in PAC services in Sudan. Most of the health care institutes have no functioning MVA in most of the time. MVA is usually purchased by hospital, while the evacuation is performed for free. More efforts are needed to ensure a timely supply of equipments, effective procurement channels and a rapid response mechanism for request.

In this study, 301 (8.0%) of women presented for PAC services, received family planning counseling and providing contraceptives. This is low compared to the 56% of women in Nepal presented to PAC, received family planning counseling and contraceptives. It is important to start contraceptives as soon as possible after evacuation, as ovulation can return within two- three weeks after evacuation of a first trimester pregnancy. Many women do not receive postabortion family planning services, even though they are at risk of pregnancy within two- three weeks. PAC is an important entry point for family planning, and delaying of next pregnancy for at least six months will improve the outcome of next pregnancy[12]. It is essential to rearrange services to allow postabortion family planning counseling and provision prior to discharge from facility and to ensure that all options of contraceptives are available at the point of service delivery. This necessitates the Integration of family planning in PAC services at all levels and expansion of PAC services with the updated package[13]. PAC should be included in both pre-service curriculum and in-services training with advocacy for more future commitment, and continuous resource mobilization. Postabortion period is a vulnerable time, which provides an opportunity for health care professionals to have a major impact in reproductive health outcomes. Universal access to postabortion

and postpartum family planning may be considered an important element of care, to reduce unintended pregnancy and lower maternal mortality and morbidity.

This study showed that, induced abortion is 277 (7.4%), which is relatively low compared to many other countries. It may be due to restrictive regulations of abortion in Sudan. It may be under classified or under reported, as some of the patients with unwanted pregnancy can attempt to abort at home by themselves or by other untrained persons and report to hospital for treatment of incomplete abortion[14]. This induced abortion, legal or illegal, 214 (77.2%) was done by trained personnel and most of it was induced by misoprostol. The remaining 63 cases (22.8%), unsafe, were done by untrained persons, MW, nurses and traditional healers. This high level of unsafe abortion is consistent with that found in some regions in Ethiopia (25-50%)[9].

Low level of maternal death from abortion in this study, case fatality of 0.2%, may be due to improved management of postabortion care, through good blood supply, early intervention and good infection prevention; however, the possibility of under reporting can not be excluded.

Conclusion

Miscarriage (abortion) is prevalent even within desired pregnancy. Sharp curettage is still the method of practice. Family planning is not well integrated within PAC services. Health care providers need to know, practice and maintain full package of PAC.

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