Original Article

Complication of Menstrual Regulation (MR)-A Study On It's Clinical Presentation And Outcome

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Abstract

Background: *Menstrual regulation is the aspiration of endometrial content within 14 days from the missed period or within 42 days from the last menstrual period having previous normal cycles. So embryonic implantation either can not occur or can not be maintained.This technique is also known as menstrual aspiration, menstrual extraction, interception and uterine aspiration.This technique was first developed in 1927. In spite of its safety and effectiveness, to some extent it is contributory to some minor and major complications.* ***Objective:*** *The aim of this study was to determine the clinical presentation and outcome of the complication of menstrual regulation (MR).* ***Materials and Methods:****This cross sectional prospective study was done in Obs.&Gynae department of Dhaka Medical College Hospital, from November 2008 to February 2009. This study was on MR complications, it's clinical presentation and outcome. The cases diagnosed by history, examination and investigation.* ***Results:*** *Total number of Gynaecology admission was 1680 out of which 5.71% was due to MR complications . 89.58 % were multipara . In 77.07% cases gestational age was between 7 to 9 wks, in 52.08% cases MR was performed in private chamber. 12.5% patients suffered from p/v bleeding,2.08% suffered from shock and acute abdomen due to visceral injury. In 9.37% cases required abdominal surgery . Death was recorded in 2.08% cases.* ***Conclusion:*** *To reduce the incidence of complications, contraceptive practice should be popular and available to the community and MR service should be used as back up service when needed.*

Key words: *Menstrual Regulation , Contraceptives, Presentation, Outcome.*

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Introduction

Menstrual Regulation is the aspiration of endometrial content within 14 days from the missed period or within 42 days from the last Menstrual period having previous normal cycles.[1] It is define as any procedure which disrupts the intra uterine environment. So embryonic implantation either can not occur or can not be maintained.[2] On the other hand bureaucrats of American congress define this procedure as an interim method of establishing non- pregnancy. They do not consider the procedure as an abortion. They assume that a woman, who does not take a pregnancy test, acts unconsciously and there can be considered insane and there, is not responsible for her own deeds. And yet , internally, she can exonerate herself because she is not sure if she was really pregnant.[3]

This technique is also known as menstrual aspiration, menstrual extraction , interception and uterine aspiration.[4] Menstrual Regulation is the management for delayed menstruation either because of clinical indication or contraception as it is recommended by the government of Bangladesh. It can be done by manual vacuum aspiration. This technique was first developed in 1927.[5] Now it is being used in various parts of the world including developed and developing countries, with competing success rate to prevalent method of

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abortion.[6] MR as surgical method is simple , safe and effective with 94% of cases requiring no more than routine follow up. The procedure is also an effective way to alert the provider about the possibility of ectopic pregnancy at an early stage, when non - surgical treatment such as medical abortion with methotrexate is possible.[7] Vacuum aspiration is the technique used for conducting MR. Plastic flexible cannulae and hand pumped syringe are the equipment used for MR. It is easy to operate with. They are inexpensive, durable and easy to maintain. Electric supply is not needed because vacuum source is manual. Chance of uterine injury is less because they are flexible. Anaesthetic equipment is not required because only para cervical block is sufficient.[6] A full-fledged operating theater is not required for MR. Indeed it can be performed in general practitioner's clinic chamber. A well-lit clean room is required. It can be performed in primary health center, too in Indian context.[8] Paramedics can provide MR services as safely as physicians can.[9]

With all these advantages, Bangladesh has included MR as a recommended method of fertility regulation in it's national program since 1979.[9] Now it is widely popular in our country. MR takes only about two minutes for actual procedure. Woman can be on her own after about 25-30 min. Because she is not subjected to general anaesthesia. MR does not need hospitalization. Gynaecologist, physician, nurses and paramedics can perform MR equally safely and effectively.[6]

In spite of it's safety and effectiveness, to some extent it is contributory to some minor and major complications. Complication said to be is continuation of pregnancy, cervical laceration, prolonged bleeding and pelvic infection. Though continuation of pregnancy is about 1% but other complications are less compared to abortion later in pregnancy.[2] Now single sophisticated, easy, cheap and widely available pregnancy test may be of great help to reduce this unwanted intervention. Another rare but dangerous complication, which deserves special attention, is uterine perforation where sometimes laparotomy is required.

Therefore, whatever may be the amount of complications at the international level, we would have to consider it statistically at our national level. Complications of MR can be reduced by routine pre procedure check up, proper sterilization of equipment, maintaining proper asepsis procedure, routine examination of genital tract after the procedure, routine follow up afrer one hour. Another important matter is to build up surgical skillness of the care provider.

Materials and Methods

This study was on MR complications, it'clinical presentation and outcome. This was a cross sectional prospective study conducted on women who was admitted in Gynaecology department in Dhaka medical college hospital Datpiff during November 2008 to February 2009. Total number of admitted patient in Gynae department during that period was 1680, out of which 96 patients were admitted due to MR complication.

After admission questionarie was filled out by the investigator herself. A complete case history of the patients were taken with reference to her name, age, address, occupation, and socioeconomic status .Details menstrual history,past obstretric history like para, history of any abortion was taken. At the time of admission patient's condition like anaemia, temperature, pulse, blood pressure, p/v bleeding , heart, lungs was recorded. General, perabdominal and pervaginal examination was done. MR done after 10 wks of pregnancy were excluded from the study. The datawas analyzed by using computer based program statistical packeges for social (spss) for windows version 12.

Results

Table I shows total number of patient admitted in the Gynaecology unit of DMCH Dhaka from November 2008 to February 2009 was 1680, of which 5.71% patients was admitted due to MR complications.In contrast abortion complication comprises 16.30% of the total cases.

Table I: Distribution of MR and abortion in relation to total admission

Name of the Variables	Number	Percentage
Total Admission	1680	100
Abortion	274	16.30%
MR complications	96	5.71%

Table II shows the distribution of different variables. Age is between 20 to 40 includes 95.83% of the total patients. Most of the patients were multipara. Gestational age seven wks or more was shown to be 77.07%. Within seven days of MR 52.08% patients were admitted. Only 16.67% admission was beyond 15 days.

Table II: Distribution of different Variables

Name of the variables	Number(N-96)	Percentage (100%)
Age (In Years)		
15-19	04	4.16%
20-24	14	14.58%
25-29	24	25.00%
30-34	24	25.00%
35-40	30	31.25%
Parity		
0	10	10.41%
1-2	42	43.75%
>3	44	45.83%
Gestational age (In weeks)		
6-7	22	22.91%
7-8	34	35.41%
8-9	40	41.66%
MR admission Interval (In days)		
1-7	50	52.08%
8-14	30	31.25%
>15	16	16.67%

Table III presents socioeconomic status of the patients performed MR. Majority of the patients were lower socioeconomic class and hold percentage 58.33%.

Table III: Socio economic status of the patient.

Socio economic status (monthly income)	Number (N=96)	Percentage (100%)
Upper class	10	10.41%
Middle class	30	31.41%
Lower class	56	58.33%

Table IV shows the places where MR was performed. Largest single category is in the private setting where it was done. 74.99% cases were done in private chamber and non Government clinics.

Table IV: Places where MR performed

Name of the places	Number (N=96)	Percentage (100%)
RH STEP	10	10.41%
Govt Health centre	14	14.58%
Non Govt clinic	22	22.91%
Private clinic	23	23.95%
By un skilled person	27	28.12%

Table V shows number of previous MR performed. Largest category had one or more , which was 73.95%.

Table V: Number of previous MR procedure

Number of previous MR procedure	Number (N=96)	Percentage (100%)
0	22	22.91%
1	57	59.37%
2	14	14.58%
>3	03	3.12%

Table VI shows the causes of MR performed Most of the MR were done for unexpected pregnancy and hold 62.50%.

Table VI: Causes of MR performed

Causes of MR performed	Number (N=96)	Percentage (100%)
Un expected pregnancy	60	62.50%
Increased spacing	24	25.00%
Contraceptive failure	09	9.37%
Illegal pregnancy	03	3.12%

Table VII presents the clinical presentation of the patients during admission. 87.5% of them were admitted and subsequently diagnosed as incomplete MR . Only 12.5% patients were admitted due to uncomplicated p/v bleeding.15.62% patients were severely anaemic. In 4.16% cases there was profound generalized sepsis. Patients admitted with irreversible shock were 2.08%. Acute abdomen with visceral injury was shown to be about 2.08%.

Table VII: Clinical presentation of the patients during admission.

Pattern of complications	Number (N =96)	Percentage (100%)
Incomplete MR	84	87.5%
Only P/V bleeding	12	12.5%
Anaemia		
Mild	39	40.62%
Moderate	42	43.75%
Severe	15	15.62%
Seosis		
Localized	12	12.5%
Generalized	04	4.16%
Shock	02	2.08%
Acute abdomen due to visceral injury	02	2.08%

Table VIII shows the final outcome of the patients after treatment.Only conservative treatment was required in 33.33% cases. Laperotomy and major intraabdominal surgery was performed in 9.37% cases. Total number of death was 2.08.

Table VIII: Final outcome of admitted patients

Pattern of treatment given	Number (N=96)	Percentage (100%)
Only conservative treatment	32	33.33%
D and C after conservative treatment	53	55.205%
Laperatomy and major intra abdominal surgery	09	9.37%
Death	02	2-08%

Discussion

This study was conducted in Dhaka medical College Hospital a tertiary referral hospital situated in the center of capital city Dhaka where many patients come for better management particularly when complicated. During the study period total Gynaecological admission were 1680 among which 274 were abortion cases and 96 were due to MR complications.

The abortion incidence of all types were 16.30% among Gynaecological admission where 5.71% were MR complications. S.P Biswas conducted study in Sher-E-Bangla Medical College Hospital, Barisal where 6.46% cases were MR complications.[10] This percentage is consistence with the findings of his studies. So under reporting of the cases tend this situation. It may not be actual situation. It reflects only hospital based statistics, not population based. This study is showing that about 95.83% of patients belonged to 20-40 years age group and majority 89.58% are mother of two children and most of the patients had come from low socioeconomic condition, most of them illiterate and house wife. S.P Biswas study finding were 96% within 20-40 years old. Most of the patients were multipara and most of the patient had come from low socioeconomic condition. This percentage is consistence with the findings of his study. It also reflects DMCH is the hospital for the poorest and affluent society referred from different private hospital though MR is

legally accepted in Bangladesh. Present study shows that in 74.99% cases of MR performed in non Govt. clinic and private chamber. S.P Biswas reported 70% of MR was done in Non-Govt. clinic and private hospital. Despite the virtual presence of MR facilities in all Upazilla health center and many different Govt.hospitals and the availability of an appreciable MR training system could not reduce the undesired intervention in private setting skills , knowledge and the attitude of the performer are not always unequivocal.

It is logically aparrent that the load of complications is to some extent unmistakably related with the place of interventions and the professional dexterity of the concerned medical persons. Therefore, the efficacy of the training, it's proper implementation and the prevalence of trained personal at the practice level needs to be seriously readdressed.

The most of the patients were presented with P/V bleeding. Majority of the patient about 83.33% patients got admitted within 7-14 days of Menstrual Regulation. Only 16.67% got admitted after 15 days.

In this study 63.82% cases used contraception at some times while the other 36.18% never used any form of contraceptives. S.P Biswas reported that 52% women had been used contraceptives.10 A little bit increasing the percentage of contraceptive uses. Among the cases management of 88.53% cases were quite simple, most of the patients could be discharged within 1-2 days. 55.20% underwent D.E &C and were discharged next day. The patients with shock also recovered promptly (10% of total patient) after resuscitation. Only 2.08% patients had iatrogenic perforation which was treated by repair of uterus and total abdominal hysterectomy accordingly. One patient had gut injury and managed by repair of the gut. This patient suffered a lot during their hospital stay. But it is a preventable condition with good family planning facilities and proper counseling. 15.62% patients were severely anaemic and needed blood transfusion and 16.66% patient developed features of sepsis. As most of them done MR under unhygienic condition by untrained person.

97.90% patient were improved , this may be due to the fact DMCH is one of the large hospital situated in the center of the capital, have better facilities to manage complicated or critically ill patients. In this study there were 2 maternal death. Most common cause of death was septicemia with peritonitis and renal failure. Death was common among the septic cases. S.P Biswas College shown mortality rate 6%. But in this study it is 2.08% reflects decreasing mortality rate.

The total number of women attending in the Medical College Hospital does not reflect the actual situation of the country because many people go to the private clinic and don't report their fate. In Bangladesh maternal mortality is 3.2% of which abortion is 14%. The rate of unplanned pregnancy is 50% and unwanted pregnancy is 25%. Many using indeed abortion as a means of birth spacing and others as a mean to reduce the burden on an already large family. So such complications and death could be prevented if safe early pregnancy termination is done by trained providers.

Conclusion

MR is a widely popular birth control practice in our country. But there are many complication due to its unjust as well as unskilled practice. Strict enforcement of the legislature , training under meticulous supervision, prompt and easy detection of pre gnancy duration and mass awareness may be of some rolein bringing down the situation under control. In addition to reduce the incidence of complications, contraceptives practice should be popular and available to the community and MR service should be used as back up service when needed.

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