

Original paper

The Success Rate of Expectant Management in The Treatment of 1st Trimester Missed Miscarriage

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Abstract

B **ackground:** the expectant management has been considered possible alternative to surgical treatment (dilatation & curettage) of 1st trimester pregnancy missed miscarriage.

Aim of study: to determine the successfulness & safety of 2 weeks expectant management for 1st trimester pregnancy missed miscarriage.

Patients & methods: in this study was selected early pregnancy missed miscarriage, pregnant women ≤ 8 weeks & pregnant women from 8-12 weeks.

150 cases of missed miscarriage were collected but only 128 women agreed for expectant management after counseling. Which they are randomly selected managed expectantly over 7-14 days periods.

Results: The results were found that the expectant management being successful in 65.6% (84/128) cases while being unsuccessful in 34.4% (44/128). 128 patients of this study attended follow-up to the karballa maternity hospital and were triaged by assessments of symptoms.

80 Of the patients ≤ 8 weeks the success rate was 100%, which is statistically highly significant =0.001

while 48 of patients 8-12 weeks success rate only 8.3% (4/48) while not success 91.7%(40/44)

Discussion: Expectant management of 1st trimester missed miscarriage has been found now days to be a good alternative to other methods for treatment of missed miscarriage.

It is safe, effective with good success rate which is 65.6% which is statistically highly significant. $P=0.001$

Conclusion: Expectant management appears to be sufficiently successful, safe and effective to be offered as an option for women with 1st trimester missed miscarriage.

Keyword: expectant management, missed abortion, treatment options.

Introduction

Spontaneous abortion, or miscarriage, is defined as a clinically recognized pregnancy loss before the 20th week of gestation, The World Health Organization (WHO) definition of miscarriage as spontaneous expulsion embryo or fetus weighing 500 g or less. ^(1,2)

Miscarriage was about 50 000 inpatient admissions in the United Kingdom annually. ⁽³⁾

It was common, account about 15–20% of all pregnancies, and can have both medical and psychological consequences. But the maternal mortality was rare after miscarriage, particularly in the first trimester. ⁽³⁾

The medical term which included delayed pregnancy loss referred to those failed pregnancies or called missed miscarriage, and differing from incomplete pregnancy loss in that it precedes the passage of tissue and the onset of significant vaginal bleeding. ⁽⁴⁾

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A complete pregnancy loss is characterized by complete passage of the intrauterine tissue. The cervix is closed and the remaining endometrial thickness is typically less than 15 mm by ultrasound.⁽⁴⁾

The incomplete pregnancy loss was characterized by partial passage of the products of conception with clinical or ultrasonographic evidence of retained products of conception.⁽⁴⁾

Although the causes of first trimester loss are multifactorial and often remain unknown, certain risk factors increase the likelihood of pregnancy loss.

Risks of pregnancy loss were significantly higher among women of higher maternal age (>35 years), women with a low body mass index (BMI;<20 kg/m²) regardless the age, and women with high cortisol levels (may be due to elevated stress) and low levels progesterone (<12 ng/mL) prior to 7 weeks of gestation.⁽⁵⁾

Other risk factors of miscarriage are include smoking, nonsteroidal anti-inflammatory drug (NSAID) use, poor glycemic control, thyroid dysfunction, acute infections like (Listeria, toxoplasmosis, parvovirus B19, rubella, herpes), and hypercoagula-bility states.⁽⁶⁾

In the two-thirds of cases in which an embryo is found, approximately 50 percent are due to congenital abnormality, dysmorphic, stunted, or too macerated for examination⁽⁷⁾. Abnormal embryos may result from chromosomal abnormalities or exposure to teratogens.

spontaneous abortions in which 41 percent had chromosomal abnormalities⁽⁸⁾.

Women experiencing a miscarriage can present to their family physician in a number clinical ways, these ways are, vaginal bleeding, absent fetal heart tones on Doppler, size-dates discrepancy on bimanual examination, or a routine ultrasonography indicating a nonviable pregnancy⁽⁹⁾.

No single parameter is very sensitive for predicting an impending loss, although certain clinical and ultrasound findings are suggestive of pregnancies that will not

reach the viability. The most important & reassuring marker of a healthy pregnancy is the presence of cardiac activity, which should be evident after 5 weeks of gestation or once the embryo reaches 2 mm in length. If cardiac activity is present, the risk of spontaneous loss decrease from 3% to 6%.⁽¹⁰⁾

Prior to the detection of heartbeat, findings such as a gestational sac smaller than expected for dates or an abnormal-appearance of yolk sac, that is large, irregular, free floating, or calcified may suggest subsequent pregnancy loss, and should be followed by repeated ultrasonography.⁽¹¹⁾

Dilatation and curettage is the traditional treatment for spontaneous miscarriage; manual vacuum aspiration is another surgical option. Prompt surgical evacuation of the uterus has been recommended in the past because of the risk for infection and concerns about coagulation disorders that result from retained tissues of pregnancy.^(12,13)

Many recent studies^(14,15) have examined the outcomes of expectant and medical management for women with spontaneous miscarriage.

Expectant management for 7–14 days as the first-line management method for miscarriage. to determine management options other than expectant management if the woman is at increased risk of hemorrhage and had history of stillbirth, miscarriage, or ante partum haemorrhage in previous pregnancy.⁽¹⁶⁾

Expectant management of missed spontaneous miscarriage has variable success rates. Expectant management is often the initial treatment choice for patients experiencing a spontaneous pregnancy loss. However, women who choose this option should be counseled that complete expulsion may take up to 1 month. By day 7 post diagnosis, approximately 50% of women request surgical management; 70% do so by day 14.⁽¹⁷⁾

Materials and Methods

This prospective longitudinal study has been conducted in Kerbala maternity hospital from October 2013 to October 2014 and data randomly selected over a period of 12 months.

150 cases of missed miscarriage were collected but only 128 women agreed for expectant management after counseling.

In this study, the diagnosis of missed miscarriage based on the ultrasound finding and pregnancy test then the calculation of gestation made by ultrasound measurements and from last menstrual period. plasma fibrinogen level & plate let count also did for all patients, the results for all were normal, all of them were The expectant period was calculated from time of diagnosis on ultrasound hemodynamically stable but they are presented with mild vaginal bleeding.

In this study the patient were advised to inform us if they thought they had a completed miscarriage by noticing the expelled tissue confirms the presence of products of conception while being in the community, by give them our phone no. , and were further instructed to do trans abdominal U/S to confirm further the diagnosis of complete miscarriage within two weeks the time duration of fallow up. The Outcome of expectant management was categorized as follows; complete resolution of vaginal bleeding after passage of products at home: the patients were instructed "what to expect" (may notice clots with some tissue) and the trans abdominal U/S revealed empty uterine cavity on D14 or RPOCs less than 2 cm (which need no intervention was undertaken if there is no history of heavy vaginal bleeding).

Results

In this study was found that 28/128 of woman are 15-25 years, 67/128 between

26-35 years, 33/128 between 36-45 years as is shown in figure (1).

whereas 19 were primiparous, 109 were multiparous as shown in figure (2).

in this study revealed that 67% of (80/128) pregnancies were \leq 8 weeks of gestation, wherare 33% of (44/128) pregnancies were between 8-12 weeks as shown in figure (3).

128/150 women choose expectant management about 85.3%.of the total patients

all of cases were diagnosed as missed miscarriage based on ultrasound findings.

After accepting conservative management for two weeks (which started from the day of ultrasound diagnosis of miscarriage).

The results were found that the expectant management being successful in 65.6% (84/128) cases while being unsuccessful in 34.4% (44/128). 128 patients of this study attended follow-up to the karballa maternity hospital and were triaged by assessments of symptoms as shown in figure (2). which is statistically highly significant $P=0.001$

80 of the patients \leq 8 weeks the success rate was 100%, which is statistically highly significant $p=0.001$ as shown in figure (3).

while 48 of patients 8-12 weeks success rate only 8.3% (4/48) while not success 91.7% (40/44) as shown in figure (3).

Age group 15-25 years success rate was 32.1% (9/28) while not success group about 67.9% (19/28) as shown in figure (1).

Age group 26-35 years success rate was 85.1% (57/67), while not success was group 14.9% (10/67) as shown in figure (1).

Age group 36-45 years success rate was 54.5% (18/33), while not success group was 45.5% (15/33) as shown in figure (1).

In primigravida success rate was 10.5% (2/19) while not success was 89.5% (17/19) as shown in figure (3).

In multigravida success rate was 75.2% (82/109) while not success was 24.8% (27/109), which is statistically significant $P=0.001$ as shown in figure (3)

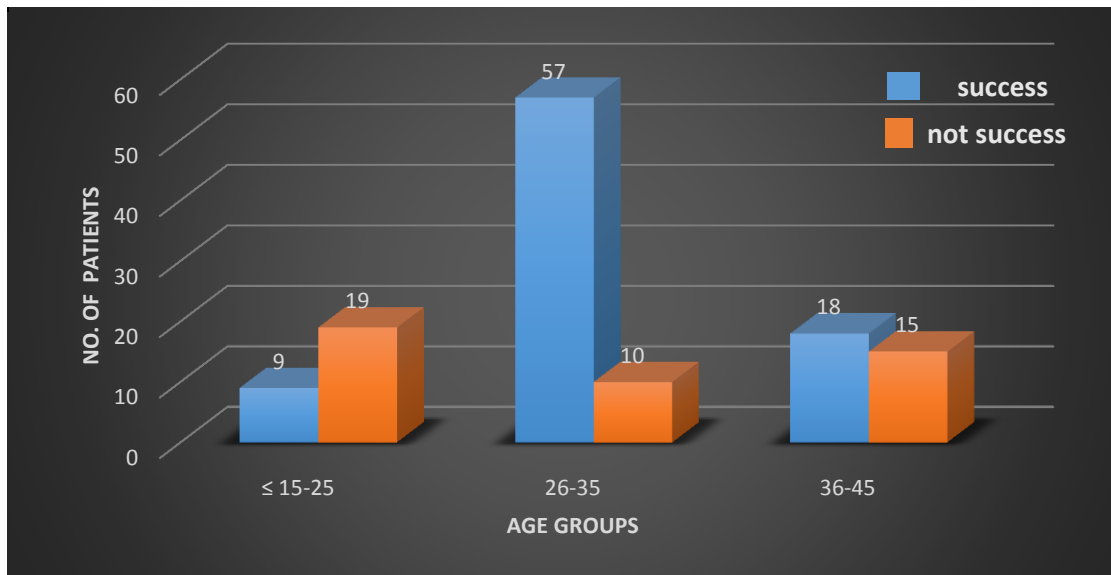


Figure 1. age * treatment Crosstabulation

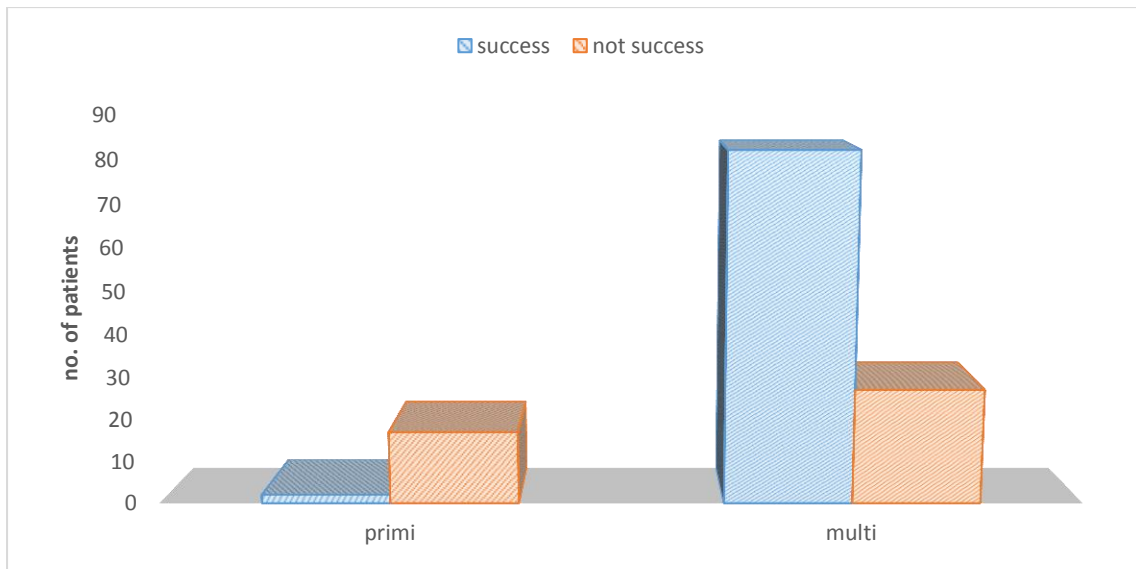


Figure 2. Gravida treatment crossbulation

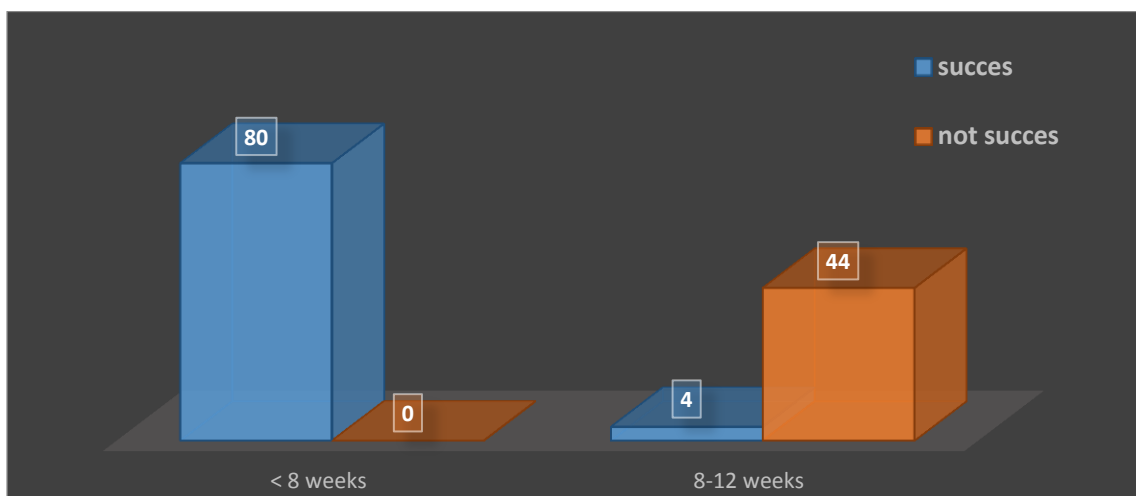


Figure 3. Gestational age* treatment Cross tabulation

Discussion

Expectant management of 1st trimester missed miscarriage has been found now days to be a good alternative to other methods for treatment of missed miscarriage.

It is safe, effective with good success rate which is 65.6% as shown in figure (2) which is statistically highly significant. $P=0.001$

It is safe because it is good alternative treatment to medical & surgical methods which are used for treatment of missed miscarriage because these 2 methods carrying high risk of incomplete abortion this for medical method^(18,19,20) while with surgical method there are high risks of infection, perforation & asherman syndrome⁽²¹⁾

The success rate of 2 weeks expectant management in this study is statistically highly significant because more longer time is given more rate of passing products of consumption in missed miscarriage⁽²²⁾.

In this study was shown variable success rate range with 32.1%, 54.5 to 85.1%

While J. S. Bagratee & V. Khullar showed variable success rate with expectant management with 25 to 85%⁽²³⁾.

This different may be related to our Iraqi population and the time given for spontaneous expulsion.

In this study was shown that the total success rate of 2 weeks expectant management of missed miscarriage is 65.6% while P. Schwärzler et al reported 62% success rate after two weeks of expectant management of missed miscarriage.⁽²⁴⁾

This difference in 2 studies may be related to the difference in the population.

In this study was found that the success rate of expectant management of missed miscarriage was 100% ,(80) patients who are \leq 8 weeks of gestation SPeter Schwärzler 1,3 & Des Holden I showed that the patient in expectant management group, (84%) had a spontaneous, complete

abortion, This suggests that expectant management is a successful approach for many patients with first trimester miscarriage.⁽²⁵⁾

This difference may be related to the time being given to the patients enter in expectant management of missed miscarriage.

in this study was found that the success rate of expectant management of missed miscarriage was 85.1 in age group 26-35 years.

I. Casikar* & T. Bignardi showed that the rates of spontaneous resolution at 2 weeks according to the type of miscarriage were 35% for missed miscarriage.⁽²⁶⁾

This difference may be related to differences in age group has been taken.

In this study is shown the success rate of expectant management 65.6% is statistically highly significant this is due to longer time given the more chance of spontaneous complete passage of consumption A review by Butler showed that the expectant management may sometime take up to 2- 6 weeks the success rate is 65-75%⁽²⁷⁾.

Expectant management can be continued as long as the woman is willing and provided there are no signs of infection. The duration can sometimes be as long as 6-8 weeks; this is reflected in the higher success rates with prolonged follow-up. An increasing bleeding pattern at inclusion⁽²⁸⁾.

In this study was found that about 85.3% of patients choose expectant management. When patients are allowed to choose their therapy, 38 to 75 percent choose expectant management.⁽²⁹⁻³¹⁾

This due to the time given to allow period for spontaneous expulsion in addition to that the effective counseling about the safety of expectant management had been play a role in increase the number of patient with missed miscarriage to choose this kind of management.

In this study the success rate has variable but generally higher ranging from 8.3-100%

While other studies show that the expectant management has a variable but generally lower success rate than medical therapy, ranging from 16 to 76%⁽³¹⁻³⁴⁾

This may be due to time given ,the more time the more chance of complete spontaneous expulsion.

In this study was found that expectant management was 100% success rate in ≤ 8 weeks missed miscarriage which was not found in other studies.

While the success rate of expectant management in 8-12 weeks of gestation is 8.5%

These results may give an idea that there may be a relationship between the gestational age & the successfulness of the expectant management, as early gestational age as more success rate.

In this study was found that the success of expectant management of 1st trimester missed miscarriage was 75.2% in multiparous women.

This due to that the expectant management is more successful in multiparous women Than primiparous women who are with a success rate of 10.5%.

This is may be due to relation between the gravidity & the success rate which has been not found in other studies.

It was need further studies to know the relationships between these variables.

Conclusion

Expectant management appears to be sufficiently safe, effective & successful to be offered as an option for women with 1st trimester missed miscarriage.

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