Original paper

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

Maysaloon Adnan Abd-Alrazzaq^*

^Department of Gynecology/ College of Medicine/ University of Kerbala/ Kerbala/ Iraq

Abstract

Background: 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 ≤8weeks & 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 0f 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

Abortion was a common problem in our community. It defined by WHO 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]
maternal mortality was rare after abortion particularly in the first trimester 4. Complete passageway of the intrauterine content with close cervix is called complete abortion. [4] While incomplete abortion occurred when part of uterine content was remained intrauterine.[4]

*For Correspondence: E-Mail may07707108147@yahoo.com

The exact cause of abortion in the first trimester was not well known but there were many risk factors like age, mostly old women; women with increase or decrease weight; hormonal disturbance like high level of cortisol in stress for example, and decrease progesterone level.(5)

Other endocrine diseases like diabetes, thyroid disease, infection and hypercoagula-bility states are considered risk factors. (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).

The clinical presentation of abortion is present with bleeding or absent of fetal heart or as abnormal fetal size than expectant (9).

There was no single predictor factor for abortion, although ultrasound finding can some time predict pregnancy that not reach viability. Fetal cardiac activity was important finding of ultrasound after 5-6 weeks of gestation, if present, the risk of abortion decreases to half percent (3% to 6%. (10)

small a gestational sac, an abnormal- yolk sac may predict pregnancy loss before time of presentation of cardiac activity (11)

surgical treatment like dilatation and curettage was the common way of treatment. It had some risk like infection, bleeding and perforation (12,13)

Many studies (14,15) compared between medical and expectant treatment.

the first-line management method for abortion was Expectant management for one to two weeks. Unless the women had risk factors like ante partum haemorrhage in previous pregnancy which may affect type of management. (16)

women should be adviced that the expactant management might be take up to one month. About half of women change to surgical option after one week. (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 werecollected 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 do abdominal U/S to confirm further the diagnosis of complete miscarriage within two weeks the time duration of fallow up from time of expected abortion.

The result of expectant management was assessed clinically by decrease vaginal blood loss and by trans abdominal U/S revealed empty uterine cavity after two weeks.

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≤ 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 .

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 significant P=0.001 80 of the patients ≤ 8 weeks the success rate was 100%, which is statistically highly significant p=0.001as 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 sucess 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)

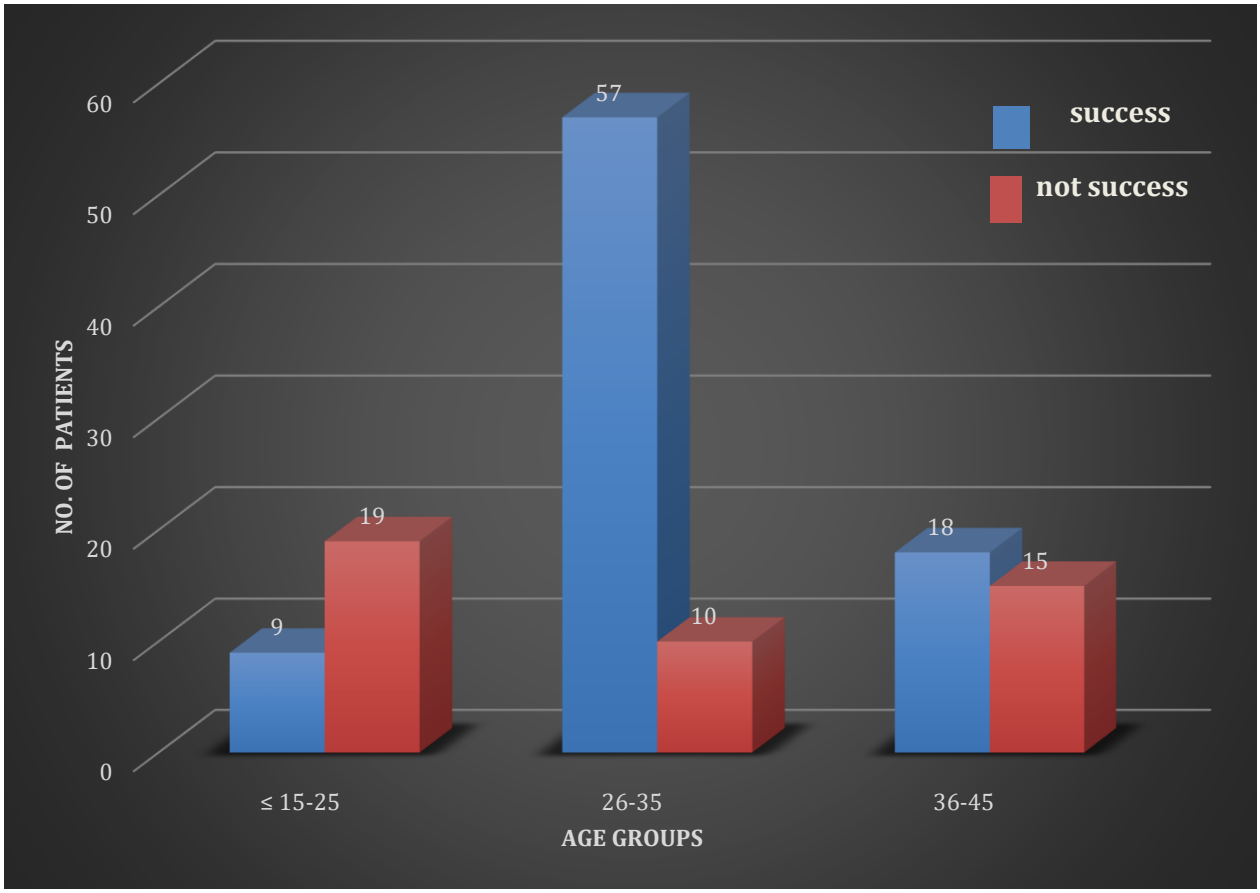

Figure 1. age * treatment Crosstabulation

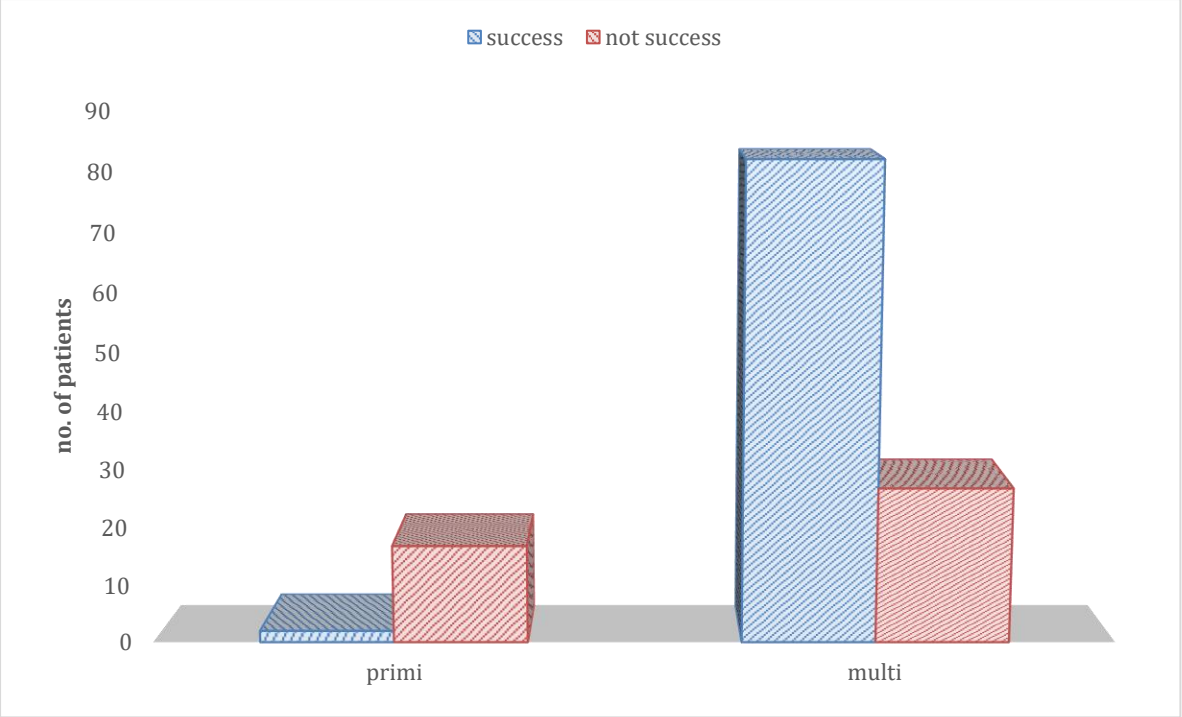

Figure 2. Gravida treatment crossbulation

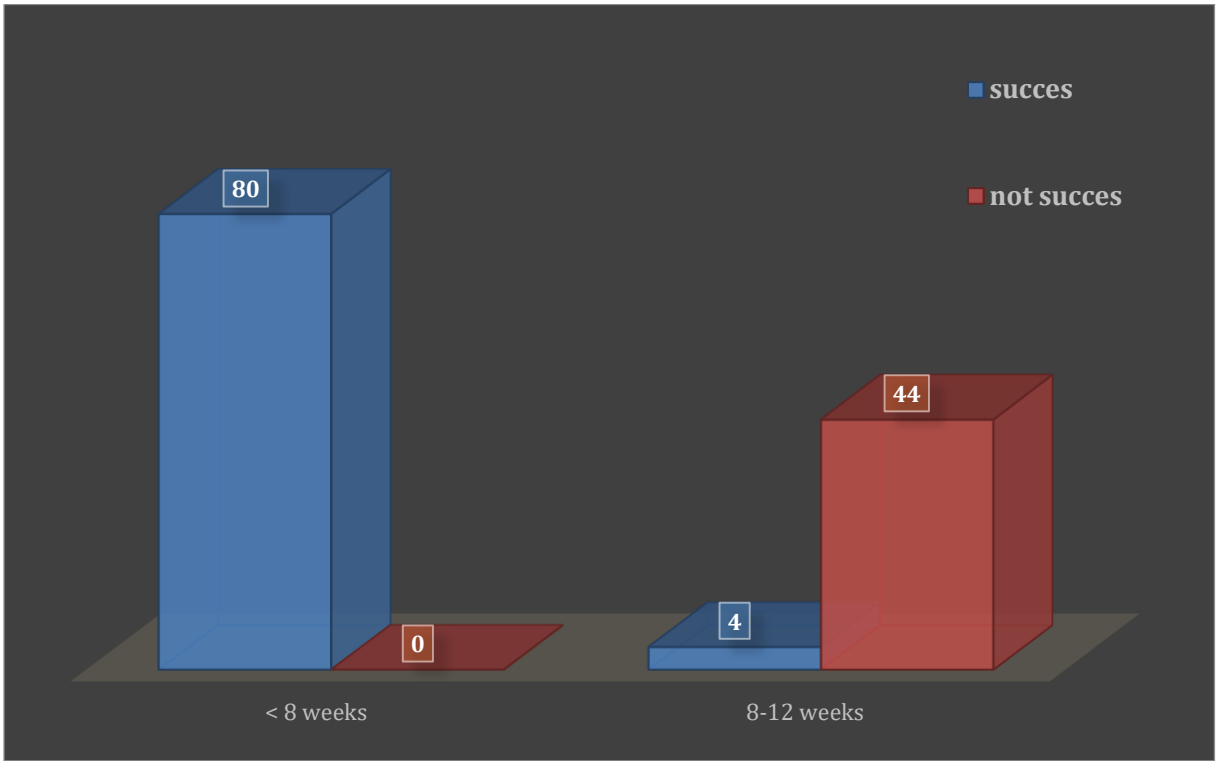

Figure 3. Gestational age* treatment Cross tabulation

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)

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%, 54.5to 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 success rate of 62 % [24]. This difference in 2 studies may be related to the difference in the population.

In this study was found that the success rate was 100% by expectant management (80) patients who are ≤ 8weeks of gestation SPeter Schwärzler 1,3 & Des Holden1showed that the patient in expectant management Group. The 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 was 85.1% missed miscarriage by expectant method in age group 26-35 years. While Casikar & T. Bignardi found success rate 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 Up to two months [28]. In this study was found that about 85.3% of patients choose expectant management. 38 to 75 % 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 had less success rate than other methods [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 was100%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. This due to that the expectant managementis 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.

References

1. Regan L, Rai R. Epidemiology and the medical causes of miscarriage. Best practice & research Clinical obstetrics & gynaecology. 2000 Oct 1;14:839-54.
2. Goddijn M, Leschot NJ. Genetic aspects of miscarriage. Best Practice & Research Clinical Obstetrics & Gynaecology. 2000 Oct 1;14:855-65.
3. Sagili H, Divers M. Modern management of miscarriage. The Obstetrician & Gynaecologist. 2007 Apr 1;9:102-8.
4. Jauniaux E, Johns J, Burton GJ. The role of ultrasound imaging in diagnosing and investigating early pregnancy failure. Ultrasound in obstetrics & gynecology. 2005 Jun 1;25:613-24.
5. Arck PC, Rücke M, Rose M, Szekeres-Bartho J, Douglas AJ, Pritsch M, Blois SM, Pincus MK, Bärenstrauch N, Dudenhausen JW, Nakamura K. Early risk factors for miscarriage: a prospective cohort study in pregnant women. Reproductive biomedicine online. 2008 Jan 1;17:101-13.
6. Jana L Allison, MD,1 Rebecca S Sherwood, RN,2 and Danny J Schust, MD2. Rev Obstet Gynecol. 2011; 4: 5–14.PMCID: PMC3100102 Management of First Trimester Pregnancy Loss Can Be Safely Moved Into the Office Rev Obstet Gynecol. 2011; 4: 5–14.
7. Fantel, AG, Shepard, TH. Morphological analysis of spontaneous abortuses. In: Bennett MJ, Edmonds DK, eds. Spontaneous and recurrent abortion. Blackwell Scientific Publications, Oxford 1987. p. 8.
8. Hsu, LYF. Prenatal diagnosis of chromosomal abnormalities through amniocentesis. In: Genetic Disorders and the Fetus, 4th ed, Milunsky, A (Ed), The Johns Hopkins University Press, Baltimore 1998. p.179.
9. Prine LW, MacNaughton H. Office management of early pregnancy loss. American family physician. 2011 Jul 1;84.
10. Juliano M, Dabulis S, Heffner A. Characteristics of women with fetal loss in symptomatic first trimester pregnancies with documented fetal cardiac activity. Ann Emerg Med. 2008;52:143–147. (PubMed)
11. Rowling SE, Coleman BG, Langer JE, Arger PH, Nisenbaum HL, Horii SC. First-trimester US parameters of failed pregnancy. Radiology. 1997 Apr; 203:211-7.
12. Scroggins KM, Smucker WD, Krishen AE. Spontaneous pregnancy loss: evaluation, management, and follow-up counseling. Prim Care. 2000;27:153–67.
13. Creinin MD, Schwartz JL, Guido RS, Pymar HC. Early pregnancy failure—current management concepts. Obstet Gynecol Surv. 2001;56:105–13.
14. Chung TK, Cheung LP, Sahota DS, Haines CJ, Chang AM. Spontaneous abortion: short-term complications following either conservative or surgical management. Aust N Z J Obstet Gynaecol. 1998;38:61–4.
15. Geyman JP, Oliver LM, Sullivan SD. Expectant medical or surgical treatment of spontaneous abortion in first trimester of pregnancy? A pooled quantitative literature evaluation. J Am Board Fam Pract. 1999;12:55–64.
16. Rafi J, Khalil H. Expectant management of miscarriage in view of NICE Guideline 154. Journal of pregnancy. 2014 Apr 27;2014.
17. Bagratee JS, Khullar V, Regan L, et al. A randomized controlled trial comparing medical and expectant management of first trimester miscarriage. Hum Reprod. 2004;19:266–271. (PubMed)
18. Graziosi GC, Mol BW, Reuwer PJ, Drogtrop A, Bruinse HW. Misoprostol versus curettage in women with early pregnancy failure after initial expectant management: a randomized trial. Human reproduction. 2004 Aug 1;19:1894-9.
19. Say L, Brahmi D, Kulier R, Campana A, Gülmezoglu AM. Medical versus surgical methods for first trimester termination of pregnancy. The Cochrane Library. 2002.
20. W. M. Ankum, "Management of first trimester miscarriage," British Journal of Hospital Medicine, 2008:7, 380–383,.
21. Hooker AB, Lemmers M, Thurkow AL, Heymans MW, Opmeer BC, Brölmann HA, Mol BW, Huirne JA. Systematic review and meta-analysis of intrauterine adhesions after miscarriage: prevalence, risk factors and long-term reproductive outcome. Human reproduction update. 2013 Sep 29:dmt045.
22. Shelley JM, Healy D, Grover S. A randomised trial of surgical, medical and expectant management of first trimester spontaneous miscarriage. Australian and New Zealand journal of obstetrics and gynaecology. 2005 Apr 1;45:122-7.
23. Bagratee JS, Khullar V, Regan L, Moodley J, Kagoro H. A randomized controlled trial comparing medical and expectant management of first trimester miscarriage. Human reproduction. 2004 Feb 1;19:266-71.
24. Schwärzler P, Holden D, Nielsen S, Hahlin M, Sladkevicius P, Bourne TH. The conservative management of first trimester miscarriages and the use of colour Doppler sonography for patient selection. Human Reproduction. 1999 May 1;14:1341-5.
25. Schwärzler P, Holden D, Nielsen S, Hahlin M, Sladkevicius P, Bourne TH. The conservative management of first trimester miscarriages and the use of colour Doppler sonography for

patient selection. Human Reproduction. 1999 May 1;14:1341-5.
26. Casikar I, Bignardi T, Riemke J, Alhamdan D, Condous G. Expectant management of spontaneous first-trimester miscarriage: prospective validation of the '2-week rule'. Ultrasound in Obstetrics & Gynecology. 2010 Feb 1;35:223-7.
27. Butler C, Kelsberg G, St Anna L, Crawford P Clinical How long is expectant management safe in first-trimester miscarriage, J Fam Pract. 2005 Oct;54: 889-90
28. Wieringa-de Waard M, Ankum WM, Bonsel GJ, Vos J, Biewenga P, Bindels PJ. The natural course of spontaneous miscarriage: analysis of signs and symptoms in 188 expectantly managed women. Br J Gen Pract. 2003 Sep 1;53:704-8.
29. Molnar AM, Oliver LM, Geyman JP. Patient preferences for management of first-trimester incomplete spontaneous abortion. J Am Board Fam Pract. 2000;13:333–7.
30. Jurkovic D, Ross JA, Nicolaides KH. Expectant management of missed miscarriage. Br J Obstet Gynaecol. 1998;105:670–1.
31. Luise C, Jermy K, Collons WP, Bourne TH. Expectant management of incomplete, spontaneous first-trimester miscarriage: outcome according to initial ultrasound criteria and value of follow-up visits.Ultrasound Obstet Gynecol. 2002;19:580–2.
32. Sairam S, Khare M, Michailidis G, Thilaganathan B. The role of ultrasound in the expectant management of early pregnancy loss. *Ultrasound Obstet Gynecol*. 2001;17:506–9.
33. Jurkovic D, Ross JA, Nicolaides KH. Expectant management of missed miscarriage. Br J Obstet Gynaecol. 1998;105:670–1.
34. Wood SL, Brain PH. Medical management of missed abortion: a randomized clinical trial [published correction appears in Obstet Gynecol 2002;100:175]. Obstet Gynecol. 2002; 99:563–6.