Expectant care versus surgical treatment for miscarriage

26 February 2008

With expectant management, women require a surgical intervention more often than with surgical management (repeat surgery), but expectant management carries a significantly lower risk of infection. Where prevalence of unsafe abortion is low, expectant management of miscarriage would be safe and probably highly cost-effective.

RHL Commentary by Weeks A

1. EVIDENCE SUMMARY

This review (1) assesses studies that compared expectant and surgical treatment for miscarriage at less than 14 weeks of gestation. The authors intended to include all types of miscarriage (missed early abortion, early fetal death, inevitable or incomplete miscarriage), but they only found either studies on incomplete miscarriage or studies in which all types of miscarriage were grouped together. Therefore, the review results are largely applicable to incomplete miscarriage rather than any other type of miscarriage.

Traditionally, first trimester miscarriage has been treated by surgical uterine evacuation because of the fear of uterine infection and bleeding. However, it is now clear that the risk of infection or haemorrhage is low with spontaneous miscarriage, even if no treatment is given (2) (in contrast to miscarriages that are induced unsafely). Several studies have therefore been conducted to evaluate whether surgical intervention is really necessary in the case of spontaneous miscarriages. This review analyses five randomized controlled trials (689 participants) conducted up to December 2005, and makes recommendations about the efficacy of expectant management for miscarriage. In 2006, after the publication of the Cochrane review results of a new trial (2) became available, (involving 802 women); the results of that trial are broadly in line with the conclusion of this Cochrane review.

The authors' search for studies for the review was meticulous, and the review methods were of a high quality. The interventions and results in the five studies included were similar, which increases the reliability of the findings of the review.

Overall, only about 10% of women who received expectant management required surgical curettage. An additional 11% of women in the expectant management group chose to have surgical evacuation, suggesting a frustration among these women with the time it took for spontaneous abortion to occur. In contrast, all women in the surgical management group had surgery and 2% required repeat surgery to remove products of conception that continued to be retained after the first surgery. Significantly fewer women in the expectant management group (1%) had pelvic infection following their miscarriage compared with the surgical management group (3%). Apart from an increase in unplanned surgical intervention (10% in the expectant...
management group versus 2% in the surgical management group), the only other disadvantage of expectant management was an average of two additional days of vaginal bleeding. 

On the basis of these results, the authors conclude that neither approach is superior to the other. Hence, woman's preference should play a dominant role in decision-making regarding which approach to follow.

2. RELEVANCE TO UNDER-RESOURCED SETTINGS

2.1. Magnitude of the problem

Miscarriage occurs naturally and is common in all settings. Data from developed countries suggest that about 15% of pregnancies end in a miscarriage. However, in many settings unsafe induced abortions are also common, and in such settings distinguishing between an incomplete spontaneous abortion and an incomplete induced abortion poses a problem for clinicians. Unsafe abortions are high-risk, and frequently result in uterine perforation, pelvic infection and infertility through tubal blockage. Globally, unsafe abortions account for an estimated 68 000 deaths per year – 13% of all maternal deaths (3). Almost all of these deaths occur in developing countries. Incomplete miscarriage-abortion is therefore a major public health problem in developing countries.

2.2. Applicability of the results

All the studies analysed in this review were conducted in developed-country settings where there is a low risk of infection and only rarely do clinicians encounter cases of incomplete unsafe abortions. From a biological standpoint the results of this review would be applicable to developing-country settings. However, in settings where there is a high prevalence of unsafe abortions and latent cervical infection, the results of the review would be less applicable. An increase in the rate of cervical infection associated with unsafe abortion could increase infective morbidity in either or both groups (expectant management and surgical management). There is a risk of infection in both groups – from surgical instruments in the surgery group, and from prolonged duration of retained products in the expectant group. Current research data do not answer the question as to which is the lowest risk option in these settings. Studies comparing medical management using misoprostol with surgical management in areas where unsafe abortion is common do not suggest a difference in infection risk, although presumptive antibiotic therapy is often used (4). Expectant management may therefore be safe, but new research is urgently needed to confirm this.

2.3. Implementation of the intervention

In areas where prevalence of unsafe abortion is low, expectant management of miscarriage is safe and is likely to be highly cost-effective. It is therefore recommended as the first-line management option for incomplete first trimester abortion. This reassurance can be given to women at all levels of the health system and simply requires education of health-care providers. The use of manual vacuum aspiration (5) can be reserved for those who continue to bleed heavily or who develop infection-related complications of spontaneous miscarriage. This is likely to be welcomed by many health-care providers as it would liberate scarce resources that were being used for surgical treatment of miscarriage.

For areas where unsafe abortions are common, there is not enough evidence to recommend expectant management. Hence, manual vacuum aspiration or oral misoprostol (600 µg as a single dose) is recommended (4, 5).

3. RESEARCH

The safety of expectant management in areas where unsafe abortion is common has not been established. Given the frequency of the problem, the high morbidity associated with it, and the amount of scarce
resources that are taken up in surgical evacuation, a study of expectant management versus surgery is both ethical and overdue.

References


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