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RU486 combined with PG analogs in voluntary termination of pregnancy

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Abstract

This French study evaluates the clinical results of administering RU486 with prostaglandin analogs in early pregnancy. Since 1986, RU486 has been used with prostaglandin analogs to interrupt pregnancies of less than 49 days' amenorrhea. Success rate among 10 250 cases was 95.3%. Failures involve ending of pregnancy without expulsion (2.8%), and ongoing pregnancy (1.1%). Two cases of cardiovascular complications following administration of the prostaglandin have occurred. The majority of users prefer this method because it eliminates need for surgery and anesthesia, and it allows the patient to take an active role in the procedure.

Introduction

Abortion is a moral dilemma; it can represent failure to the woman, the physician, and society, but it is the duty of physicians to offer the safest methods available, to minimize psychological and physical injury.

Since 1986, RU486 has been used with prostaglandin analogs to interrupt pregnancies of less than 49 days' amenorrhea. RU486 received authorization for distribution in October 1988, is bound by the same legislation as opiates and is not available in drugstores, even by prescription. Users must abide by French law regulating the voluntary interruption of pregnancy, which requires an 8-day waiting period; consultation with a social worker; written consent, signed by the patient if she is an adult or by one parent if she is a minor; and residence in France for at least the 3 months immediately prior to treatment; finally, the termination must be performed in authorized centers, public or private.

Originally, RU486 was used alone for voluntary pregnancy interruption. Administration of a single 600 mg dose of RU486 [1,2] had a success rate of 80% – too low for large-scale use, because of the unknown effect of RU486 on the children born after women had taken it unsuccessfully to induce abortion.

To increase the success rate, a prostaglandin analog was combined with the RU486. Forty-eight hours after 600 mg of RU486, PGE_2 was administered intramuscularly (250 or 125 mg), or PGE_1 was administered as a vaginal suppository (1 mg). The success rate with the combined method was 95%.

Indications

Indications for pregnancy interruption with RU486 plus PGE are:

(1) informed consent in use of the method;
(2) pregnancy of less than 49 days' amenorrhea;
(3) no contraindications to the use of RU486 or PGE.

Contraindications

(1) clotting disorders or use of anticoagulant drugs;
(2) history of chronic adrenal gland failure or long-term corticosteroid therapy (RU486 is an anti-corticosteroid and therefore may interfere with this disease or treatment);
(3) history of cardiovascular or asthmatic problems;
(4) pregnancy with an intrauterine device; cesarean section within the previous year; or extensive uterine fibroids;
(5) expressed desire by the woman for a one-day surgical method;
(6) expressed desire by the woman not to be actively involved in the procedure.

Materials and method

The following study of RU486 with PG was done by Roussel–Uclaf in June 1990. The total number of patients studied was 10 250.

At the initial visit pregnancy termination was requested and, if the pregnancy was of less than 49 days' amenorrhea and the patient met the other criteria and had none of the contraindications, the option to use the RU486 plus PG method was discussed. If the patient chose the RU486 method, a pelvic examination was done to confirm the pregnancy, and a serum level of β-hCG was done to verify the pregnancy age. The patient's Rh type was determined and a detailed explanation of the RU486 method was given to the patient. An appointment was made for a visit to the social worker, as required by French law.

At the second visit, which took place after the requisite 8-day waiting period, the written consent form was signed and the age of the pregnancy was confirmed with β-hCG or ultrasound. The patient then took a total of 600 mg of RU486, and was allowed to go home, taking with her a leaflet and information about what to do in case of emergency.

At the third visit, which took place three days later, the patient was instructed to arrive at the hospital at 8:00 a.m. The prostaglandin analog was administered either intramuscularly or by vaginal suppository and the patient was monitored for four hours. The patient waited in an informal lounge, in an armchair, wearing her own clothes, and was allowed to request analgesic treatment and lie down if she desired. If the expulsion took place within four hours, the patient was allowed to leave the hospital right away. If expulsion did not take place at the hospital, ultrasound was performed three days later, at which time an Rh vaccine was administered, if the patient was Rh negative, and a pelvic examination was performed.

The fourth visit took place on day 8–12 after expulsion. If the procedure was successful, a gynecologic examination and contraceptive counseling were done. Menstruation generally began within 36 days after expulsion.

If expulsion did not occur within 3–4 days after administration of the prostaglandin analog, ultrasound was performed to determine whether the pregnancy had stopped but the fetus had not been expelled; vacuum aspiration was scheduled to be performed within the following 8 days, to avoid infection, and also for psychological reasons.

Results

Of the 10 250 women receiving treatment with RU486 and PG, the method was successful in 9769 women. This was a 95.3% success rate (Table 1). In 4.7% of the women, the procedure failed. Of these, 292 women (2.8%) experienced an interrupted pregnancy but no expulsion; 113 women (1.1%) experienced an on-going pregnancy; and 76 women (0.8%) experienced excessive bleeding and underwent D&C or vacuum aspiration (Table 2).

Table 1. Success rate with RU486 combined with PGE ($n = 10\ 250$)

	Number of patients	*%*
Successful expulsions	9,769	95.3
Failures	481	4.7

Table 2. Failure rate with RU486 combined with PGE ($n = 481$)

	Number of patients	*%*
Interrupted pregnancy, no expulsion	292	2.8
Ongoing pregnancy	113	1.1
D&C or vacuum aspiration for heavy bleeding	76	0.8

Twelve days after treatment, 130 of the women were surveyed about the experience. Three women did not want to answer; 3 women were willing to talk about their pregnancy interruption but not about the method; 116 women (92.8%) were satisfied with the method and felt it was preferable to other methods because it avoided surgery and anesthesia; 13 of these women had previously had a surgical abortion, and said that this method seemed more natural to them. Eight women (7.2% of the 124 who responded to the survey) felt the method took too long and gave too much responsibility to the patient. Some women said it motivated them to consider future contraception.

Discussion

Why the failures occurred in 4.7% of women has not been explained. Although expulsion has been known to occur with RU486 alone, before the PGE is administered, this has been reported in the literature in only 3.4% of patients [5]. Only a few complications have occurred among the 34 000 women treated with RU486 in France since testing was initiated; one woman with myocardial disease and another with ventricular fibrillation experienced symptoms within 2 hours after the prostaglandin analog was administered. Both were over 35 years of age. This experience suggests that the method should not be used for women over 35 or women with a history of cardiovascular problems.

The method is considered a long procedure, involving two stages. Also, the patient sometimes experiences pain. However, the patient has an active role in the procedure, because she takes the pills and monitors bleeding, pain, and expulsion. In a surgical procedure, the physician is the one who induces pregnancy interruption and monitors the effects of the treatment.

Conclusion

RU486 plus PG is recommended for responsible women who want to manage their own pregnancy interruption. This method is not suitable for women who do not want to be actively involved in treatment. Women mentioned the avoidance of surgery and anesthesia as their reason for choosing this method, adding that it seemed more natural to them than other methods. The method is highly effective, but should be done under strict medical supervision. It cannot be used by all women. Despite technical advances such as this, abortion continues to be a distressing ethical problem.

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Resumé

Cette étude effectuée en France évalue les résultats cliniques de l'administration du RU486 avec des analogues de prostaglandine pour les interruptions de grossesses. Depuis 1986, le RU486 a été utilisé avec des analogues de prostaglandine pour les interruptions de grossesses à moins de 40 jours d'aménorrhée. Le taux de succès sur 10.250 cas a été de 95,3%. Les échecs se sont répartis comme suit: 2,8% d'interruptions de la grossesse sans expulsion; 1,1% de poursuite de la grossesse. Deux cas de complications cardio-vasculaire après l'administration dc prostaglandine se sont présentés. La plupart des patientes préfèrent cette méthode car elle supprime l'intervention chirurgicale et l'anesthésie et qu'elle permet à la patiente de prendre une part active à l'opération.

Resumen

Este estudio realizado en Francia evalúa los resultados clínicos de la administración de RU486 con análogos de prostaglandina en la etapa temprana de los embarazos. Desde 1986, el RU486 se ha utilizado con análogos de prostaglandina para interrumpir embarazos de menos de 49 días de amenorrea. La proporción de éxito en 10.250 casos fue del 95,3%. Los fracasos corresponden a la interrupción del embarazo sin expulsión (2,8%) y a la continuación del embarazo (1,1%). Se registraron dos casos de complicaciones cardiovasculares después de la administración de prostaglandina. La mayoría de las usuarias prefirieron este método porque elimina la intervención quirúrgica y la anestesia, y permite a la paciente participar activamente en el procedimiento.