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(Accepted 6 October 1992)

Medical management of missed abortion and anembryonic pregnancy

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BMJ 1992;**305**:1399

Miscarriage is the most common complication of pregnancy and probably accounts for around 50 000 inpatient admissions in the United Kingdom each year. Generally, its management has changed little with time. Recently developments in non-surgical treatment, refined in induced abortion, offer an opportunity to improve management and to remove the need for surgery and anaesthesia. We report our initial experience of the use of mifepristone (an antiprogesterone) and misoprostol (a synthetic analogue of prostaglandin E_1) in the management of missed abortion and anembryonic pregnancy (gestation sac present but no developing embryo).

Patients, methods, and results

Sixty women with a diagnosis of missed abortion or anembryonic pregnancy equivalent to 13 weeks' gestation or less were recruited after counselling. Twenty five of the women had been referred for ultrasound scanning because of bleeding in early pregnancy, while in the remainder the diagnosis had been made on routine scanning when they booked. Patients in whom an incomplete abortion was diagnosed were not included.

Each patient was given a single oral dose of mifepristone 600 mg and was admitted to the gynaecological ward as an outpatient 36-48 hours later, when misoprostol 600 μg was given orally in a divided dose (400 μg and, two hours later, 200 μg). The patient's pulse, blood pressure, and temperature were recorded hourly, as were any side effects and requests for analgesia. If the products of conception were not expelled and verified within four hours vaginal ultrasonography was performed. If the gestation sac was not seen and bleeding had occurred the procedure was considered to have been successful, but if not the patient was offered evacuation of the uterus under general anaesthesia. All patients were reviewed 10-14 days later.

The median age of the 60 women was 27 (range 15-44), and the median duration of amenorrhoea was 71 (42-110) days. Twenty nine patients were diagnosed as having anembryonic pregnancies and the remaining 31 as having had a missed abortion. One of the patients thought to have an anembryonic pregnancy was eventually found to have an ectopic pregnancy when she failed to abort. She has been excluded from further consideration.

Eight patients aborted with mifepristone alone. Of the 51 remaining patients, 43 aborted after taking misoprostol 600 μg and five more aborted after receiving a second divided dose of 600 μg misoprostol. In three patients the treatment failed, and they underwent evacuation of the uterus under general anaesthesia. Exploratory curettage was performed in two other patients at 14 and 22 days after treatment with misoprostol, but no products of conception were obtained.

The median time from administration of misoprostol to abortion was 4 (range 1-11) hours. The median duration of bleeding after abortion was 10 (2-22) days. There were no cases of infection, and no patient required antibiotic treatment. Side effects from misoprostol treatment (nausea, vomiting, and diarrhoea) were few: antiemetic drugs were given to five patients, and diarrhoea was reported by seven. Thirty nine women did not ask for any pain relief, 13 requested oral analgesia, and seven required parenteral analgesia.

Comment

The medical management of induced abortion is now established practice, and several centres have developed considerable skill in using mifepristone with a variety of prostaglandin analogues.[1-4] We have shown the clinical feasibility of managing missed abortion and anembryonic pregnancy medically without resort to surgery or anaesthesia. Patients' perceptions at this early stage of development of the method are positive but need to be assessed more thoroughly, particularly in relation to the alternatives. The implications in terms of resources are considerable since if this method became standard practice a major part of emergency work in gynaecology would be removed from the operating room and could be managed at times more convenient to patients and staff.

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(Accepted 23 October 1990)