
In this study from Aberdeen, UK, 500 women were randomly assigned to misoprostol 100 mg and 500 to the Yuzpe regimen for emergency contraception within 72 hours of unprotected intercourse. All patients were asked a questionnaire and a follow-up appointment. A comparison was made of efficacy, side effects and patient acceptability, and possible confounding factors were taken into account.

Crude pregnancy rates as well as expected and prevented pregnancy rates were compared to assess efficacy. Seventeen pregnancies occurred in the Yuzpe group (all of which were considered to be method failures) giving a pregnancy rate of 3.6%. Only three pregnancies occurred in the misoprostol group giving a pregnancy rate of 0.6%. The difference in the rates was highly significant. Two of the three misoprostol pregnancies were considered to be user failures because conception must have occurred after the emergency contraception. If they are excluded, misoprostol is seen to be even more significantly effective. Comparison of expected and actual pregnancy rates showed that misoprostol prevented 92% of pregnancies while Yuzpe prevented 56%. If the two user failures are excluded the misoprostol group prevented 97%.

Side effects were less with misoprostol except that delay of the next menstruation was more common in the Yuzpe regimen. Satisfaction was significantly better with the misoprostol group.

Now that prostogestogen-only emergency contraception has taken over from the Yuzpe regime the most useful comparison would be between misoprostol and prostogestogen-only pills. This type of data is available now to those reported for levonorgestrel in the World Health Organization (WHO) study of 1998. Another of the authors' own studies has shown that misoprostol 200 mg is effective up to 120 hours after unprotected intercourse. Previous published comparisons of misoprostol and Yuzpe used misoprostol at a dose of 600 mg. However, as a result of its own trial the WHO now recommends a dose of only 10 mg. The authors of the present study choose 100 mg because only 200 mg tablets are available in the UK.

There is now a strong case to consider the use of misoprostol in emergency contraception. The cost of misoprostol (Mifegyn®) 100 mg is about £2 per tablet in the UK, whereas levonorgestrel (Livial) soft tablets is £5. Probably the WHO recommended dose of 10 mg for misoprostol is adequate and if available should make this method the cheapest. However, Exelgyn, the manufacturers of Mifegyn® have told me that they are awaiting the outcome of current research before considering promoting this method.

Reviewed by Mr Michael Cox, FRBCOG, MFFP Consultant Obstetrician and Gynaecologist (Retired), Nuneaton, UK


This is a case-controlled study from five centres in the USA co-ordinated by the Center for Disease Control and Prevention, Atlanta, FL, USA. A total of 4575 women with breast cancer aged 35 to 64 without breast cancer, all aged 35 to 64 years, were interviewed with regard to their history of taking oral contraceptives. Eleven possible confounding variables were considered including age, race, smoking, breastfeeding, and so on.

The overall relative risk was 1.0 for current oral contraceptive users and 0.9 for previous users. The relative risk did not increase with longer periods of use or with higher doses of oestrogen. Results were similar among white and black women. Use by those with a family history of breast cancer was not associated with an increased risk nor was the initiation of oral contraceptive use at a young age. There were no consistent differences according to the type of progestogen used.

Previous reports have given slightly conflicting results concerning this problem. The Cancer and Steroid Hormone (CASH) study of 1986 did not show an association between oral contraceptive use and breast cancer. However in 1996 a meta-analysis of data up to 1994 suggested a slightly increase risk, the relative risk being 1.24.

An editorial in the same issue (N Engl J Med, 2002; 346: 2078–2079) comments on the Marchbanks study under the title 'Good News about Oral Contraceptives'. This points out some possible weaknesses of the meta-analysis and observes that the present study clearly confirms the CASH study. Indeed the CASH study suggested that further study to determine late effects may take a decade or more to resolve. Sixteen years later the present study provides that resolution.

Reviewed by Penny Watson, MFFP, MPH General Practitioner, Edinburgh, UK


This was a prospective study to examine the effects of intrauterine devices (IUDs) on pelvic inflammatory disease. The detection of microorganisms from the culture of removed IUDs and the incidence of uncomplicated genital tract infections. Previous studies had shown the direct correlation to PID and the use of an IUD to be scarce.

Two hundred married and parous women were recruited and each was fitted with a copper Multiload 250. The end point of the study for each woman was the evidence of PID or after removal at 3 years. Women were excluded if they had an allergic reaction to copper, history of ectopic pregnancy, history of sexually transmitted infection (STI), history of PID, genital tract malformation, genital malignant disease or blood clotting disorders. It would seem that the population was very select, especially in relation to the entry of data from 54 studies had suggested a slightly increased risk, the relative risk being 1.24.

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Reviewed by Penny Watson, MFFP, MPH General Practitioner, Edinburgh, UK


This study aggregated seven recent epidemiological studies that investigated the risk of myocardial infarction (MI) in users of second- and third-generation combined oral contraceptives. Together the seven studies involved nearly 6500 women from 1996, and the authors compared the results with those from earlier reports between 1966 and 1995. The aggregated results confirm that all the oral contraceptives studied did not show an excess of risk for MI when used according to their regulatory labels. MI is rare in women of reproductive age and the absolute rates of occurrence reported in these studies was even lower than the rates reported in studies between 1966 and 1995. Not all the studies in this aggregation reported absolute rates, but the authors estimated from the studies that the rate in those women on oral contraceptives (either second- or third-generation) could not be more than 0.6–1.8 per 100 000 women per year. The 22 studies from 1966 to 1995 gave rates of 1.5 in non-pill users and 13 in pill users (per 100 000 women per year).

The data confirm that women with risk factors should be treated with caution. Smoking and hypertension are major risk factors for MI. The patients' interpretation of the data from this aggregation is that for women with minor risk factors such as a family history of MI, the risk of the third-generation oral contraceptives may be slightly more favourable than that of second-generation oral contraceptives.

In practice, it seems likely that this study will make it easier for health professionals and GPs to give full information to women with minor risk factors and help in the choice of contraception. For the majority of women, the study shows that the risk of a MI is so low that it is unlikely to play a major role in the dimension of the relative benefits and risks of particular contraceptives.

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