

## Preventing IUCD-related pelvic infection: the efficacy of prophylactic doxycycline at insertion.

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### Abstract:

Most of the small increased risk in pelvic inflammatory disease (PID) associated with the intrauterine contraceptive device (IUCD) appears to be caused by bacterial contamination of the endometrial cavity at the time of insertion. This randomized clinical trial of 1813 women in Nairobi, Kenya, assessed the effectiveness of 200 mg of doxycycline given orally at the time of insertion in reducing the occurrence of PID. The rate of this infection in the doxycycline-treated group was 31% lower than that in the placebo-treated group (1.3 and 1.9%, respectively; RR 0.69; 95% CI 0.32 to 1.5). The rate of an unplanned IUCD-related visit to the clinic was also 31% lower in the doxycycline-treated group (RR 0.69; 95% CI 0.52 to 0.91). Although the significance level ( $P = 0.17$ ) for the reduction in PID does not meet the conventional standard of 0.05, the results may be suggestive of an effect. Moreover, the reduction in IUCD-related visits ( $P = 0.004$ ) not only represents an important decrease in morbidity but also substantiates the reduction found for PID. Further studies are needed to corroborate these results. Consideration should be given to the prophylactic use of doxycycline at the time of IUCD insertion as an approach to preventing PID and other IUCD-related morbidity.

PIP: This double-blind, randomized clinical trial was conducted to investigate whether the use of prophylactic doxycycline at intrauterine contraceptive device (IUCD) insertion can reduce the incidence of pelvic inflammatory disease (PID) in women. 1813 women in Nairobi, Kenya, were given 200 mg of doxycycline, taken orally at the time of IUCD insertion. Analysis of the data collected show that the rate of PID infection in the doxycycline-treated group was 31% lower than that in the placebo-treated group. The rate of an unplanned IUCD-related visit to the clinic was also 31% lower in the doxycycline-treated group. Although the significance level ( $P = 0.17$ ) for the reduction in PID does not meet the conventional standard of 0.05, the results may be suggestive of an effect. In addition, the reduction in IUCD-related visits ( $P = 0.004$ ) not only represents an important decrease in morbidity, but also substantiates the reduction found for PID. To conclude, the prophylactic use of doxycycline at the time of IUCD insertion appears effective, well tolerated, and cost-effective. Further studies are needed to corroborate these results and consideration should be given to the prophylactic use of doxycycline at the time of IUCD insertion as an approach in preventing PID and other IUCD-related morbidity.