

# LETTERS TO THE EDITORS

## Ectopic pregnancy

*To the Editors:* The article by Peterson et al. (Peterson H, Xia Z, Hughes J, Wilcox LS, Tylor LR, Trussell J, et al. The risk of pregnancy after tubal sterilization: findings from the U.S. Collaborative Review of Sterilization. *Am J Obstet Gynecol* 1996;174:1161-70) shows that 32.9% of surgical female sterilization failures ended in ectopic pregnancy. Because ectopic pregnancy risk in the United States has been increasing, were the authors able to detect an increased risk of ectopic pregnancy per 1000 woman years of use by calendar year of recruitment of women in their study? The proportion of sterilization failures that were ectopic in this study is considerably less than that reported by others. The authors had evidence of sterilization failures in their group lost to follow-up detected after telephone follow-up. What proportion of these were ectopic pregnancies?

Although case fatality of ectopic pregnancy has declined to 0.08% in industrialized countries, it still represents 9% of maternal mortality in the United States. For developing countries ectopic pregnancy case fatality may be 5%, adding to their unacceptably high maternal mortality. Peterson et al. mention the options for women, such as intrauterine contraceptive devices, in view of the now established 1.8% pregnancy failure rate at 10 years for surgical sterilization. However, in the United States and in some large developing countries such as India intrauterine contraceptive devices are not well accepted by women. One option not mentioned by the authors is quinacrine sterilization, as developed by Zipper et al.<sup>1</sup> of Santiago, Chile. Recent reports<sup>2</sup> of transcervical application of quinacrine pellets show a pregnancy failure rate of approximately 1 per 100 women at 2 years. Projecting this to 10 years would give a pregnancy failure rate twice that of surgical sterilization. But the proportion of sterilization failures for quinacrine sterilization that are ectopic is <4% with a risk per 1000 woman-years of use of quinacrine sterilization of 0.89.<sup>3</sup> Quinacrine sterilization experience internationally now exceeds 100,000 cases. Chile has approved the method for use in government hospitals. The method is rapidly expanding as an off-label use of quinacrine. Wider availability will save the lives of women of reproductive age by raising contraceptive prevalence, which will avoid maternal deaths, those from ectopic pregnancy in particular.

Elton Kessel, MD, MPH

Department of Public Health and Preventive Medicine, Oregon Health Sciences University, Portland, OR 97201

## REFERENCES

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2. Kessel E. 100,000 quinacrine sterilizations. *Adv Contracept* 1996;12:69-76.
3. Hieu DT, Tan TT, Tan DN, Nguyet PT, Than P, Vinh DQ.

31,781 cases of nonsurgical female sterilization with quinacrine pellets in Vietnam, *Lancet* 1993;352:213-7.

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## Reply

*To the Editors:* We are confused regarding Kessel's question concerning women lost to follow-up in our study. Although we know the baseline characteristics of women lost to follow-up in the study (e.g., age and method of tubal occlusion), we have no information regarding the occurrence of pregnancy or any other poststerilization event (excluding three pregnancies identified by one investigator as discussed in our report) among women lost to follow-up. Thus we have no means of knowing what proportion of pregnancies among those lost to follow-up were ectopic gestations. We are currently in the process of analyzing data regarding ectopic pregnancies among women followed up.

Kessel also asks whether we have detected an increased risk of ectopic pregnancy by calendar year of recruitment into the study. Our numbers of women with ectopic pregnancy are too small for such an analysis.

The use of quinacrine for tubal sterilization was beyond the scope of our discussion. Concerns have been raised regarding the potential for mutagenicity and teratogenicity with use of this method. The method is not approved for use in the United States, and the World Health Organization recommended in 1994 that further clinical research is not justified until various toxicologic issues have been resolved.<sup>4</sup>

Herbert B. Peterson, MD

Women's Health and Fertility Branch, Division of Reproductive Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, GA 30341

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## REFERENCE

1. Benagiano G. Sterilization by quinacrine [Letter]. *Lancet* 1994;344:689.

## Less vaginal cuff and pelvic infection after laparoscopic hysterectomy?

*To the Editors:* The incidence of genital infection after hysterectomy in prospective controlled studies varies from 5% to 64%.<sup>1</sup> To evaluate the vaginal cuff and pelvic infection rate after different forms of hysterectomy, we performed a prospective nonrandomized study comparing abdominal hysterectomy, vaginal hysterectomy, laparoscopically assisted hysterectomy,\* and the classic intrafascial serrated-edge hysterectomy.<sup>2</sup> To obtain comparable groups, inclusion criteria for the consecutive women referred for hysterectomy to enter the study were an estimated uterus weight of <400 gm, at least primip-