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Quinacrine sterilization (QS) in Syria: a preliminary report on 297 cases

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Abstract

Objectives: To evaluate the safety, efficacy and acceptability of quinacrine sterilization (QS) in Syria. *Methods:* From July 2001 to December 2002, 297 women who requested permanent sterilization volunteered for QS either in my private practice or my local family planning center in Aleppo, Syria. The standard protocol was used: 252 mg of quinacrine in the form of 7 pellets are deposited at the uterine fundus with a modified CuT IUD inserter during the proliferative phase of the menstrual cycle. This procedure is repeated 4 weeks later. DMPA was injected at the time of the first insertion for temporary contraception. Every sterilized woman has had a monthly checkup visit until the cut-off date for this report, including a beta HCG pregnancy test. All procedures were performed by the author. The cut-off date for this report was June 11, 2003. *Results:* The single pregnancy was ectopic. Four women (1.3%) complained of severe pain. Moderate pain was experienced by 13.1% while the remaining women felt mild pain, all easily treated. The remaining side effects were minor and also easily treated. Oligomenorrhea and amenorrhea affected 29% of the women and lasted for several months. Immediate side effects are similar to reports from other researchers. *Conclusions:* Results thus far regarding efficacy are encouraging. QS has proven to be acceptable.

Keywords: quinacrine sterilization, nonsurgical sterilization, female sterilization

1. Introduction

After women have all the children they want, they prefer a permanent method of contraception. However, currently the only option is surgical sterilization which carries with it some serious risks. In Syria, as in many other countries, there is a need for a safe, effective and acceptable alternative to this surgical procedure.

In October 2000, I was introduced to a nonsurgical sterilization method using the antibiotic and antimalarial, quinacrine. This method has been used for a quarter of a century [1] by more than 140,000 women in 34 countries. An informational ad appeared that month in *Fertility and Sterility,* the official journal of the American Society for Reproductive Medicine. After reviewing the literature, I contacted the organization responsible for that ad, the Center for Research on Population and Security. Along with the necessary training materials came an offer from the Center of research quantities of quinacrine pellets and the required modified CuT IUD inserters. After a thorough study of the training materials and local arrangements for a trial were completed, a request was made to the Center for pellets and inserters and they were soon delivered.

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2. Materials and methods

A prospective clinical study of QS is being conducted

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Table 1
Immediate side effects of QS and their treatment in Aleppo, Syria, July 2001 to December 2002 ($N = 297$)

Side effect	N	(%)	Treatment
Lower abdominal pain			
mild	254	85.5	Ibuprofen 400 mg PO three times daily for 3 days
moderate	39	13.1	Diclofenac IM 75 mg twice daily for 3 days
severe	4	1.3	Diclofenac IM 75 mg twice daily for 3 days + Tramadole 100 mg IV twice daily for 3–4 days
Yellow discharge	297	100.0	none
Nausea	142	47.8	oral ondancetron
Headache and dizziness	47	15.8	none
Backache	8	2.7	none
Vomiting	4	1.3	none

in my private practice and at the local family planning center in Aleppo, Syria. From July 2001 through December 2002, 297 women, who gave informed consent, received transcervically 252 mg dose of quinacrine hydrochloride in the form of 7 pellets (Sipharm, Sisseln, Switzerland) during the proliferative phase of the menstrual cycle. Four weeks later this process was repeated. All insertions were made by the author. The insertion technique first described by Hieu [2] was used, placing all pellets at the uterine fundus. To provide contraception for three months following the first insertion, as called for in the standard protocol for QS, all 297 women received a DMPA injection on the day of the first dose of quinacrine.

All women seeking surgical sterilization were counseled on both this method and QS. If they expressed an interest in QS, the study was explained and they were invited to participate. Since initiating the study, about 65% of the women have chosen QS and 35% surgical sterilization. Not a single woman was excluded from the study because of a pre-existing condition. A follow-up examination is given every month including a medical history, a physical exam, ultrasonography and a beta HCG test for pregnancy. Women were also told that we would see them at any time if they had complications or concerns. The cut-off date for the analysis for this preliminary report was June 11, 2003.

3. Results

As of June 11, 2003 there continues to be 100% follow-up. There has been only one pregnancy. This was an extra-uterine pregnancy that occurred 4 months after the second insertion. It was successfully treated with two doses of methotrexate. Table 1 shows the side effects that occurred immediately after quinacrine insertion and the treatment given. The only side effects encountered were the same as those reported by other investigators, and, thus, anticipated. Four women were hospitalized for observation and treatment for severe pain. None of the four exhibited rebound tenderness on palpation of the abdomen nor was there any other suggestion of perforation of the uterus. Since great care had been taken with each patient to avoid such an eventuality, I am confident there were no perforations among these four women, nor in any patient in this series. Three levels of pain were encountered as shown in Table 1, which also relates the course of treatment prescribed for each.

Either oligomenorrhea or amenorrhea was experienced by 30% (88 of 297) of the patients. However, this may have been due to the DMPA injection, not necessarily the QS insertion. Patient demand for this procedure grew steadily throughout the study period. Side effects only occasionally reported by others, such as pelvic inflammatory disease and hematometra, were not seen.

4. Discussion

This preliminary analysis of our experience in Aleppo suggests that the performance of QS here will not differ

from that seen in the other 33 countries where this method has been offered. QS has already been proven to be acceptable in this trial, as the demand for it continues to grow. The risks of surgical sterilization are a serious drawback for that method. Our experience thus far confirms that QS is much safer than the surgical procedure, a finding that all investigators of QS have reported. It is too early to draw any conclusions regarding the failure rate. The use of DMPA in our series insured that there were no early failures. That it was not necessary to exclude a single woman from this study is an important feature of QS. Thus far, QS is meeting our expectations. A definitive assessment of this method will only come from a much larger series and a much longer period of monitoring.

References

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