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MCI MOTHER AND CHILD INTERNATIONAL NEWSLETTER

INTERNATIONAL ASSOCIATION FOR MATERNAL AND NEONATAL HEALTH - IAMANEH

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Message from the Secretary General

One year ago, I wrote that there was reason for optimism as we looked to the future. Was this justified? I believe so.

Through their activities, our national sections worked to realize the improved wellbeing of mothers and their children, in particular, and the status of women in general. A grant from the World Bank has enabled us to support several demonstration projects in developing countries. Dr. Fred Sai will receive the 1990 IAMANEH Award at the 1991 General Assembly in Bandung, where new member nations from Africa and Latin America will be presented. In collaboration with IFFH, several research projects concerning non-surgical female sterilization (Quinacrine Study) could be supported. There is hope that this interesting procedure can soon be implemented more widely. Unfortunately, we were forced to postpone the congress planned for 1990 in Haiti, to 1991, and to change the location. (See special communication in this Newsletter.)

As we reflect on a year of some accomplishment in this critical field of endeavor, I wish you all the best for a successful and peaceful 199 1.

Ulrich Frey, MD
Secretary General

MEETING CHANGE

THE IVth INTERNATIONAL CONGRESS FOR MATERNAL AND NEONATAL HEALTH

will meet in

BANDUNG, INDONESIA

11 - 14 September 1991

Congress Title: ***Maternal and Infant Mortality - Closing the Gap between Perinatal Health Services***

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Surgical Vs. Nonsurgical Female Sterilization

There is now experience with over 10,000 cases of nonsurgical female sterilization using intrauterine quinacrine pellets in studies conducted primarily in Chile, India and Vietnam. No serious complication has been reported in these over 20,000 insertions of quinacrine pellets. Most cases involved two insertions, a month apart, in the proliferative phase of the menstrual cycle using 252 mg quinacrine per insertion. The failure rate at one year has been about 3% and 5% for a smaller group of women followed for over ten years. Phase I studies of the method have been completed by Johns Hopkins University to the satisfaction of the United States Food and Drug Administration (FDA), but required studies for approval of marketing in the United States have not been conducted for lack of financial support. The reports of Phase I studies and published reports related to the quinacrine method have been compiled in a single volume (1).

In a previous report (2) we showed that in a developing country like Bangladesh there was no reason to substitute this nonsurgical method for a surgical method, since each has an attributable mortality of about 30 per 100,000 procedures, as shown in Table I.

Table I. Estimated deaths attributed to surgical female sterilization and nonsurgical quinacrine female sterilization in Bangladesh and the United States (per 100,000 procedures) assuming 5% nonsurgical method failure rate.

	Sterilization			
	Surgical		Nonsurgical	
Mortalitv	Bangla-desh	U.S.A.	Bangla-desh	U.S.A.
Procedure	19.0	4.0	0.0[a]	o.oa
Ectopic pregnancy	10.7	0.2	1.7	co.1
Delivery/abortion	2.9	<0.1	28.5	0.4
Attributable	32.6	4.2	30.2	0.4

Table II. Estimated deaths attributed to surgical female sterilization and nonsurgical quinacrine female sterilization in Bangladesh and the United States (per 100,000 procedures) assuming 2.5% nonsurgical method failure rate.

	Sterilization			
	Surgical		Nonsurgical	
Mortality	Bangla-desh	U.S.A.	Bangla-desh	U.S.A.
Procedure	19.0	4.0	0.0[a]	0.0[a]
Ectopic pregnancy	10.7	0.2	1.7	CO.1
Delivery/abortion	2.9	<0.1	14.3	0.2
Attributable	32.6	4.2	16.0	0.2

[a] Based on limited published reports

Recently, Zipper has shown that the addition of a 50 mg pellet of an antiprostaglandin (diclofenac) to the quinacrine pellets will markedly lower the failure rate of the two-insertion method. In 132 women followed for one year there has not been a pregnancy failure. While this is significantly different from the expected three per 100 women at one year, the exact rate of the new formulation awaits larger numbers of subjects followed over a longer period. However, a review of Table I will show that any lowering of the failure rate of the quinacrine pellet method would give an advantage to this method in terms of attributable mortality.

To illustrate this, let us assume a lifetime pregnancy failure rate of 2.5 per 100 women for the new formulation instead of the present rate of 5 for quinacrine alone. The result is shown in Table II. The delivery/abortion mortality among pregnancy failures is halved for the nonsurgical method, resulting in attributable mortality of 16.0 (Bangladesh) and ***0.2*** (the United States), compared to 32.6 and 4.2, respectively, for surgical sterilization. These are estimates that neither developing nor industrialized countries can ignore.

For developing countries, the main advantage of the nonsurgical method is its ability to raise the prevalence of sterilization and thereby prevent unwanted pregnancies. If two births or abortions are prevented by each sterilization, as is likely in these nations with their high fertility, then each 100,000 additional sterilizations by the nonsurgical method results in a savings of twice the maternal mortality in terms of lives of women of reproductive age. For India or Bangladesh it means about 10 lives per 1000 additional sterilizations. As the cost of quinacrine pellets and inserter is only $1 (US) per sterilization, the life of a woman of reproductive age in such countries can be saved for $100. Personnel trained in IUD insertions, the same skill needed for quinacrine insertions, are already available in government and private services of these countries.

Confirmation of Zipper's finding is surely the highest priority for fertility research today.

Elton Kessel, MD
Jaime Zipper, MD
Stephen D. Mumford, Dr PH

References

1. ***Kessel E,*** Zipper J, Mumford SD The Quinacrine Pellet Method for Nonsurgical Female Sterilization: A Collection of Background Materials. Center for Research on Population and Security, Research Triangle Park, NC, September 1990.
2. Kessel E, Zipper J, Mumford SD. Quinacrine nonsurgical female sterilization: A reassessment of safety and efficacy. Fertil Steril 1985; 44:293-8.

Anemia of Pregnancy and Parenteral Iron

In large areas of the world, especially rural Africa and South East Asia, iron deficiency anemia among women of reproductive age is all too common. Very few of them escape deficiency of iron reserves as determined by serum ferritin levels (1). The impact of pregnancy on anemia status can be seen from the progressive incidence of anemia with parity (2). The deleterious effects of anemia on pregnancy outcome and maternal health are well known (3).

Antenatal administration of oral iron and folic acid is now accepted practice and increasingly offered in primary health care programs of developing countries. Many small studies have demonstrated its favorable effect on hemoglobin status in preg-