The MLCu375 intrauterine contraceptive device

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Abstract

Reports in the contraceptive literature and our own data concerning the MLCu375 intrauterine device indicate that the high-load ML model is effective, safe, and well tolerated. It is more effective than the MLCu250 without increase in the other cardinal event rates. Consequently, we consider the MLCu375 an improved ML model.

Introduction

The standard Multiload (ML) IUD (MLCu250) is one of the most widely used medicated IUDs. Over the years this device has been adapted to fit large and small uterine cavities (MLCu250 short, mini, and maxi) and a model with higher copper load (MLCu375) has been tested. The latter was designed to enhance the antifertility effect and to extend the effective life span of the MLCu250 without affecting other parameters of performance, especially the risk of expulsion.

The purpose of this presentation is to analyze the reports in the contraceptive literature and our own data and assess the extent to which the objectives of the designer of the high-load ML IUD have been realized.

Materials and methods

Table 1 shows the characteristics of the standard and the high-load ML models. Both have the same skeleton but the copper wire used in the experimental model is stronger. Due to this modification the MLCu375 has a 50% greater nominal surface area of exposed copper and carries an 82% greater weight of metal than does the MLCu250.

The two models are inserted according to the same technique: they are pushed in after sounding of the uterus and while the cervix is steadied with a volsellum.
Clinical performance

Straight study

We have inserted the MLCu375 at interval in 2422 women (Table 2). At 5 years a total experience of 84,411 woman-months had accumulated, with a lost to follow-up (LFU) rate of 9.0%. The results indicate that the high-load ML device is effective and safe, well retained by the uterus, and well tolerated by the recipient. Tables 3 and 4, which look at the same data arranged according to parity and age of the women, show that these variables had some effect on the overall performance of the MLCu375.

Comparative trials

The relative performance of the MLCu375 was evaluated on the basis of the handful of multicenter trials in which the experimental device was compared either with the standard ML or with other IUD models (Table 5). Three of the studies were randomized trials and the remaining two were retrospective, due to sequential availability of the experimental ML models. With the exception of the first of these studies (Thiery et al., unpublished), data on the randomized trials are available for the first year of use only.

Randomized trials

In two hospitals in Belgium the MLCu375, MLCu250, and TCu200 were inserted and the patients followed for 3 years (Thiery et al., unpublished). Cardinal event rates at 1 year are given in Table 6, and at that time the LFU rates ranged from 0.0 to 2.4. It is evident that the MLCu375 was more effective than the two other IUD models investigated, and at 3 years the difference was even more pronounced.

Family Health International (FHI) computerized the first-year results of a multicenter study comparing the MLCu375 with the TCu380Ag [1] (Table 7). The LFU