Copper-containing, framed intrauterine devices for contraception

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TCu380A is the most effective intrauterine device (IUD) in terms of bleeding, pain or any other reasons for early discontinuation. Experience from Turkey shows that IUDs can be provided effectively by trained nurse-midwives.

RHL Commentary by Ozalp SS

1. EVIDENCE SUMMARY

This review (1) assesses the effectiveness and side-effects of different copper-containing, framed intrauterine devices (IUDs) for contraception. The review included 34 trials that had made 16 comparisons of different IUDs. TCu380A was more effective than MLCu375, MLCu250, TCu220 and TCu200. Changing the position of copper on the arm of the IUD in the case of TCu380S did not improve its efficacy compared with TCu380A. MLCu375 was not more effective than TCu220 (at one year), MLCu250 (at three years) and NovaT (at three years). None of the IUDs was better than TCu380A in terms of bleeding, pain or any other reasons for early discontinuation. Where it is available, TCu380S may be preferred to TCu380A by women who find it difficult to load the TCu380A. The alternative frames, Multiload and NovaT, may have an advantage for a minority of women who have a tight cervical canal; however, there is loss of contraceptive efficacy with these devices.

The trials were identified using the Cochrane Fertility Regulation trials search strategy and MEDLINE/PUBMED, EMBASE, The Cochrane Central Trials register, POPLINE, LILACS, PASCAL were searched. Data analysis and reporting also followed standard Cochrane methods. The review is unbiased and appears to be appropriate.

The principle conclusion of the review authors is that TCu380A is more effective than other IUDs and there are no data available comparing different IUDs in special subgroups such as nulliparous women.

2. RELEVANCE TO UNDER-RESOURCED SETTINGS

2.1. Magnitude of the problem

The IUDs is a safe and effective method of long-term reversible contraception. It is the most widely used reversible method of contraception in the world today, used by an estimated 100 million women (2). It is also a popular method in many developing countries (e.g. China and India).
Three-quarters of currently married women in Turkey need family planning services, either for limiting or spacing births (57.6% and 18.4%, respectively). In Turkey, the unmet need for contraception is 6.0%. The reasons for this are many, including lack of awareness, non-availability of accessible family planning services, and limitations on women’s mobility. For women with limited access to medical care who don’t want to be sterilized, the IUD is a good option for long-acting contraception. According to 2003 Demographic Health Surveys data, 71% of married women in Turkey use a family planning method, but only 43% of women use a modern method. The IUD is the most commonly used modern contraceptive method used in the country, with 20% of contraceptive users; however, nearly 11% discontinue its use at one year. Discontinuation rates for the IUD because of side-effects and health concerns are 37.9% and 7.9%, respectively (3).

2.2. Applicability of the results

The review includes single and multicentre randomized controlled trials from a variety of developing and industrialized country settings. Thus, the results are would be applicable to developing countries.

2.3. Implementation of the intervention

TCu380A is more effective than other IUDs and has been shown to be effective for up to 12 years of continuous use. It is a good choice for women who have had the number of children they wanted and now want long-term contraception.

Complications during IUD insertion, such as cervical laceration or uterine perforation are rare (2). Increased or prolonged menstrual bleeding has been documented as the most common side-effect (4), causing decrease in tolerance and compliance. Therefore, women with heavy menstrual bleeding are not good candidates for IUD insertions. The possible association between IUD use and pelvic inflammatory disease (PID) has been a concern. An analysis of data from WHO's IUD clinical trials showed that PID in IUD users is related to the time since insertion and to the background risk for sexually transmitted infections. No significant differences were found among different types of copper-containing IUDs (5).

A study from Turkey showed that assistant nurse-midwives were as effective as physicians in IUD insertions and check-ups (6). In Turkey, after special training, nurses and midwives are now legally permitted to insert IUDs and perform check-ups under the supervision of a physician. In settings where the availability of physicians is limited for family planning services, nurses and midwives can take role of IUD insertion and follow-up. Hence, counselling and follow up to evaluate side-effects and detect complications related to IUD use should be an integral part of the services.

3. RESEARCH

There are no data available comparing different IUDs in nulliparous women. Large randomized controlled trials are needed to compare TCu380A or TCu380S with other smaller IUDs for effectiveness and side-effects in this group of women.

References

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