LETTERS/ERRATA

PK Sarkar, M Obstet Gynae, FRCOG
Consultant Gynaecologist, ... 1 T-safe® TCu380A IUD (left) and GyneFix ® 200 IUD (right)

Effective copper surface area of IUDs

Many providers of intrauterine devices (IUDs) wrongly believe that the nominal surface area of copper IUDs equals the effective copper surface area. The reality is different, however. This letter explains the situation.

Studies suggest that a good contraceptive efficacy is obtained with IUDs having a copper surface area of 200 mm². Failure rates of the T-Safe® TCu200 are of the order of 3 at 2 years. When the copper surface area is increased to 380 mm², annual failure rates are usually less than 5%. No additional reduction in failure rate is seen when the copper surface area is increased further. These clinical studies were conducted with copper IUDs provided with a copper wire wound around the stem of the IUD. It is important to distinguish between IUDs with copper wire and the ones that have copper sleeves or a combination of the two. The remark by Kosonen is important. “Only in the case of sleeves is the nominal surface area the effective area. When copper wire is used, that part of the wire lying against the plastic body is ineffective and should not be calculated as a part of the effective surface area.”

Other researchers confirm these findings: “The portions of the wire winding in contact with the plastic surface give off hardly any copper.” Chantler writes: “It has been shown that there is negligible corrosion of the copper in contact with the plastic core and that this area should be effective in the calculation of the active surface area of the copper.” The effective copper surface area of the TCu200 IUD is 120 mm² and of the T-Safe® TCu380A IUD 252 mm² (Figure 1). This research also showed that copper release is lower the more the winding of the copper wire is tighter. This is the case with high-load copper IUDs such as Multiload® Cu375 and TCu380A. One could conclude that 40% of the copper wire is “ineffective”.

With the frameless GyneFix® IUD, all surface areas are exposed to the uterine environment. This is a fundamental difference compared to conventional IUDs. Copper-release studies with the standard GyneFix 330® IUD removed after more than 10 years of use have shown that the copper surface area decreases very little over that period, only 7% after 12 years of use (Control, manufacturer’s data on file). The copper content of the small GyneFix® 200 IUD (Figure 1), less than 1.0 at 3 years of use, and the absence of increase in annual pregnancy rate with GyneFix as the effective surface area of the GyneFix IUD decreases very little over time. The copper content of the GyneFix 200 is 280 mg, which is higher than the copper content of TCu380A (244.7 mg of copper) having a lifespan of at least 10 years.

The smaller the size of the GyneFix the less the effect on menstrual blood loss. Women wearing the small GyneFix 200 IUD report a similar bleeding pattern when compared with the bleeding pattern before insertion of the IUD. At the same time, the small surface area optimises tolerance. This could be important since abnormal bleeding and pain are the two major reasons for IUD discontinuation.

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Statement on competing interests

Dirk Wildemeersch is a Belgian gynaecologist and Medical Director of Contrel Research, a company which was established to manage clinical research and to develop and study innovative drug delivery technologies, aimed at finding improved methods for prevention and treatment of gynaecological conditions, improvements in both contraceptive failure and higher levels of safety, user acceptability, compliance and quality of life for women. Contrel Research manufactures and distributes GyneFix® and FibroPlant® IUDs.

References


Inappropriate advertising?

I was shocked to see the Emotional Bliss advertisement in the last issue of the Journal. My dear colleagues, I believe that it is not appropriate to publish advertisements that may be seen as inappropriate. Our readership is diverse and we should ensure that our advertising does not cause any offense or discomfort. I urge the journal to consider removing such advertisements in the future.

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Reply

I am sorry to hear that Dr Qureshi objected to this advertisement. Many of the readers of this journal are necessarily involved in psychosexual therapy as part of their professional activities. In 2004, the journal published a special supplement about parenthood, emotional well-being and sexuality in which an advertisement for the Emotions/Bliss appeared and was welcomed by the readership. Our readers are mainly concerned with contraception and reproductive health and, because of this, they treat more women than men. The commonest sexual problem in women is loss or lack of libido. Whatever a therapist’s personal feelings about the use of sexual aids, it has been shown that they are a useful adjunct to treatment for sexual responsiveness in many women. The Journal’s Editorial Board believes that enabling doctors and therapists to recommend a safe and discrete source for sexual aids assists the women that they are treating.

Anne Szarewski, PhD, FFPP
Editor-in-Chief, Journal of Family Planning and Reproductive Health Care (on behalf of the Editorial Board)

ERRATA


The Journal wishes to apologise for any inconvenience or embarrassment caused to Dr Aileen Clarke that might have resulted from her name appearing in print as Aileen Clark within this article and on the contents page of the journal issue.


Unfortunately the details printed in the article for one of the contributing authors, Dr Zahra Ghodsy, were incorrect. The correct information is as follows: Dr Zahra Ghodsy, Azad University of Toyskerkan, Hamedan, Iran. The Journal wishes to apologise unreservedly to Dr Ghodsy for any inconvenience and embarrassment this inadvertent error might have caused.