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"A holistic approach to sexual health: is it needed, appropriate and possible"
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Report from Workshop session 3:
"IU Contraception"
Thursday 24 June 2004, 14:30-16:00

Experts: Dr. Istvan Batar (Hungary) & Dr. Rob Beerthuizen (The Netherlands)

Speakers: R. Beerthuizen: STD and IUD for adolescent contraception
I. Batár: When to change an intrauterine contraceptive device routinely?

The two presentations served as brainstorming lectures bringing in much more IUD-related questions than one could have expected from the titles. Several topics have been in this way discussed such as: myths and misunderstanding around the use of IUDs, infections, fertility after removal of device, ectopic pregnancy, emergency contraception, and antibiotic prophylaxis at insertion, types of IUDs, and many others.

The main conclusion was that *intrauterine contraception has still remained an effective and safe method of contraception*; however, there are circumstances when the method should not be considered as first choice of selection. *Adolescent age* is such a period, which carries extra risk for sexual and reproductive health. Rather these factors than the IUD itself are the considerations why this method is lowered in the rank of the suggested contraceptive possibilities for teenagers.

Nulliparity per se also has no contra-indication for IUD-use. But, because women below the age of 25 are at higher risk for sexually transmittable infections (STI), patient history taking should carefully focus on this risk before insertion, especially for those with different sexual partners or having a partner with various sexual partners, and regardless of parity. In addition to patient history taking, cervical cultures especially on Chlamydia are highly advisable in such cases.

The known bad compliance of using contraceptives and the reportedly high discontinuation rate of hormonal pills in adolescents indicate the real need of *emergency contraception* (EC). For this purpose IUD is more suitable than the hormonal methods: it is more effective, and can be applied up to five days following an unprotected sexual intercourse - not even mentioning the case when the "short term user" is satisfied with the device, and it is therefore left *in utero* (switching from EC to a long term solution). Specially designed and sized devices (e.g. Flexi-T 300, GyneFix and Nova-GyneFix) make this method applicable even for teenagers.

Myths and misunderstandings, others than the already mentioned young age and nulliparity, are infections, infertility after removal of the device, and the idea of recording more ectopic pregnancies (EP) with IUD-use. These myths are maintained through misleading information in a number of even recently published textbooks and manuals as warned by Espey and Ogburn [1]. But neither of them is justified by authentic clinical research works.

1. The risk of *PID* in women with IUD use is similar to the risk in women without device. The higher *PID*-rate in younger women using copper-IUDs, regardless of parity, is correlated with the age-related *STD*-rates and not related to the method of contraception. The risk of *PID* is connected to the insertion process only as has been shown by the study of the WHO and published by Farley [2]. Starting from 3 weeks after insertion, the incidence rate of *PID* is 1.38 per 1000 women-years, equally to the incidence in the "normal" population.
2. All studies performed during the last two decades indicate no difference in *fertility rates after removal* of an IUD compared with users of other methods of contraception.
3. Intrauterine contraceptive devices do not cause *ectopic pregnancy*. The increased ratio of EP (in non-IUD users 1:350, Cu-IUDs 1:8, Mirena 1:3) is only a relative increase, since intrauterine

contraceptive devices give protection against intrauterine but not ectopic conception. Calculating the occurrence for woman-years of use for the copper- and hormone-containing IUDs, the rates are 1/1600 and 1/3000, respectively.

Using *prophylactic antibiotics at insertion* is generally not necessary. But because EC (mainly among adolescents) is often preceded by unsafe sex, some treatment should be considered while waiting for the results of the cervical culture if done (either 1 gr azitromycin covering both *Chlamydia trachomatis* and *Neisseria gonorrhoeae*; or 200 mg doxycyclin being cheap but less protecting against *Chlamydia*; or 500 mg erytromycin; or 400 mg ofloxacin).

"When to change an IUD?" is a frequently raised question. Opinions have continuously been modified since the beginning era of intrauterine contraception suggesting longer and longer periods. In the first years even the plastic IUDs were advised to change yearly. Now there is a consensus that non-medicated devices may remain in place up to menopause without change. Copper IUDs are recommended to replace every 3-5-7 years depending on the suggestion of the producing factory. However, long term clinical evaluations show that the effective life span of these devices is longer than the mentioned periods, and even the copper IUDs can be left in utero up to, or more than ten years if the patient is problem-free, and no pathological findings are recorded at the regular yearly follow-ups. This opinion based on an evaluation of nearly 35,000 IUD cases and a total of 151,000 woman-months of use is justified by the following findings.

1. *Pregnancy* occurs mainly in the first two years of use, and its frequency significantly decreases thereafter. This statement is valid for the copper-containing devices, too, despite the known timely copper loss.
2. *Expulsion* rate is the highest in the first year of use, and it is much lower in the subsequent periods up to ten years.
3. There is no specific risky period for *bleeding/pain removals* in the first 120 months of IUD use. Apart from a slight fluctuation, the calculated rates are nearly the same without showing statistically significant differences.
4. Annual rates of removals for *other medical reasons* are also the same in the first ten years of use indicating no dedicated periods of such terminations.

Since neither of the above-mentioned termination types showed increased rates parallel with the duration of use, there is no reason to change the devices routinely in ten years. Newer evaluations aiming the later periods of IUD use might extend the validity of this statement even beyond this point. In problem-free cases it seems logic since removal of the device may carry risks, and reinsertion also could cause problems (e.g. PID as mentioned above).

At last, it was also confirmed that intrauterine contraceptive devices neither cause cervical/endometrial *malignancy* nor increase the risk of premalignant lesions of the uterus. The lower frequency of such pathologies generally recorded among IUD users is not a direct protective effect of the device; it is resulted by the stricter follow-up of these women comparing to non-users.

Main references

[1] Espey E, Ogburn T. Perpetuating negative attitudes about the intrauterine device: textbooks lag behind the evidence. *Contraception* 2002;65:389-395

[2] Farley et al. Intrauterine devices and pelvic inflammatory disease: An international perspective. *Lancet* 1992;339:785-8.

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