ACTA FAC MED NAISS

UDC 613.888-053.9

Professional article

ACTA FAC MED NAISS 2008; 25 (2): 87-91

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CONTRACEPTION IN ELDERLY WOMEN

SUMMARY

Counselling elderly women for their contraceptive needs can be challenging but also very worthwhile. Unwanted pregnancies in this older age group can be psychologically distressing and socially devastating. Additionaly, there is a higher risk of serious pregnancy-related complications. The challenge to provide contraception for women in their later reproductive years often coincides with menstrual dysfunction, the onset of menopausal symptoms and an increasing incidence of underlying medical conditions. While menstrual, menopausal and medical problems are more common in this age group, the non-contraceptive benefits of different methods offer the opportunity of a therapeutic option to treat these issues. This is also an excellent opportunity to mention health and lifestyle factors (protection from sexually transmitted infections, smoking cessation, exercise levels and dietary improvements).

Key words: **contraception, elderly women**

INTRODUCTION

Although there are many definitions of the perimenopause, all include the concept of transition from physiologic ovulatory menstrual cycles to hyperestrogenic anovulatory and ultimately to hypoestrogenic ovarian shut down. After the age of 35 years, the ovary contains fewer primordial follicles. This is associated with an increase in circulating follicle-stimulating hormone (FSH) and a decrease in estradiol and progesterone while luteinising hormone (LH) concentration is not significantly changed. These changes frequently occur in the face of ovulatory cycles. It is possible that changes result from decreased production of inhibin with the decreased number of follicles. Moreover, the decreased production of estradiol removes the negative feedback on LH production. The increased FSH induces rapid follicular development. The number of follicles are further reduced and estrogen production continues to decline until it becomes insufficient to induce LH surge necessary for ovulation (1).

Although some women ovulate even in their final menstrual cycle, pregnancy is rare after the age of 48. The oocite released by premenopausal women have poor quality and are less readily fertilizable (2).

The need for suitable high effective and reversible contraception is great for these women. Their fecundity was thought to be low due to a combination of reduced fertility and reduced frequency of intercourse (3, 4). Unwanted pregnancy in this elderly age group can be psychologically distressing and socially devasting. Elderly women have an increased miscarriage rate, mainly related to chrosomal abnormalities. Aditionaly there is a higher risk of serious pregnancy-related complications such as pregnancy-induced hypertension and gestational dabetes (3).

The challenge to provide contraception for

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women in their later reproductive years often coincides with menstrual dysfunction, the onset of menopausal symptoms and an increasing incidence of underlying medical conditions. The use of contraception after the age of 35 years carries special risks and benefits and the balance between them is of paramount importnce in making choice between available options (5).

ASSESSMENT OF ELDERLY WOMEN

At the initial consultation it is essential to assess the women's medical, sexual and social history relevant to contraceptive use. A careful history should be taken to assess eligibility for the various contraceptive methods and the women should be counselled about the benefits and risks of suitable options.

The non-contraceptive benefits of methods as improving menstrual or perimenstrual symptoms also need to be considered. Women with menstrual abnormalities may need gynecological assessement in the form of an examination, ultrasound scan and possible endometrial biopsy. Women with menopausal symptoms should also receive information on the benefits and risks of hormone replacement therapy (HRT). The World Health Organization's (WHO) Medical Eligibility Criteria for contraceptive use offers clear guidance relating to contraindications to individual contraceptive methods (6).

In holistic approach, women in new relationships need advice on prevention, screening and treatment of sexually transmitted infections. The aviability of emergency contraception after unprotected intercourse should not be forgotten (5).

CONTRACEPTIVE METHODS

No contraceptive method is contraindicated by age alone (5,6). Therefore, theoretically, elderly women can chose from the full range of contraceptive methods available. It is the clinician's responsibility to assess and counsel women on their individual needs.

Periodic sexual abstinence

The use of periodic sexual abstinense (calendar method) to avoid the intercourse during the fertile period is difficult in perimenopausal women because cycles are erratic. The typical menstrual patterns of the premenopausal women are unpredictable. Also, the methods that rely on detection of fertile cervical mucus can demand excessively long periods of abstinence because anovulatory cycles become increasingly freqent. Some couples are able to use this mucus method successfully together with a barrier method during fertile periods (7).

Barrier methods

Barrier methods are totally patient-controlled, side effects are rare and there are no reported health risks. Condoms are widely used by individuals of all age and should be encouraged in new relationships. They have the additional benefit of protection against sexually transmitted infections. Condoms are the only method that protect against both infection and pregnancy (if used consistently and corectly). With the declining fecundability with increasing age, the lower efficacy can become adequate but these less fecond women may be those who dread pregnancy most. Condoms are particularly not suitable for couples who have not used them earlier (7). WHO now recommends spermicide-free condoms as evidence suggests mucose damage with frequent use of nonoxinol 9 lubricant (3). Barrier methods may be very appealing to a perimenopausal women with infrequent exposure (8).

Sterilization

Sterilization of either female or male partner is an important option for couples who are certain that even if their circumstances changed, they would never want another pregnancy. Individuals requesting sterilization must be made aware of the irreversibility of the procedure and the associated operative risks (mainly female) (3). The risks are directly related to a surgical or anesthetic complications, which are more closely related to body habitus and general health care than to age. This method provides no inherent protection from sexually transmitted infections (8).

There has been suspicion that tubal sterilization causes premenopausal dysfunctional uterine bleeding, but menstrual bleeding problems are rather coincidental than casual (3). There is evidence that there may be reduced risk for ovarian cancer secondary to sealing off the peritoneal cavity from the possibility of transmitting carcinogens through the tubes. Sterilization regret, common in younger women, is much less common in perimenopausal women (8).

Intrauterine contraception

Intrauterine contraception is very effective, long-lasting and comfortable method for fertility control.

The long-term effect of modern time copper intrauterine device (Cu-IUD) nicelly suits the needs of women over the age of 35 years who are usually family-limiting rather than spaces. The high efficacy

coupled with reduced fecundity in this age group may allow extending the term of Cu-IUD use until the menopause is established, reducing the need for replacement (5,7). The risks of expulsion, infection and perforation are reduced in elderly women (3). The main problem with the Cu-IUD in this age group is that it will accentuate the already increased probability of uterine bleeding. It is a suitable method for an elderly woman who does not have excessive heavy or painful periods, but it is not suitable for those with submucous fibroids or any other conditions that distores the uterine cavity (6).

Careful assessment would indentify women with pre-existing menstrual dysfunction who may consider infection of a progestogen, levonorgestrel releasing intrauterine sistem (Lng-IUS, Mirena). It is one of the most effective methods of contraception developed to date (2). It combines high contraceptive efficacy with reduction of the amount and duration of menstrual bleeding. The latter effect is due to a local suppresive effect of levonorgestrel on the endometrium (9). For women in their 40s, it has proved particularly useful bacause it not only protects against pregnancy but also controls the dysfunctional uterine bleeding which is common in this age group and provides endometrial protection if they require estrogen replacement therapy (2). The beneficial effect of the Lng-IUS in reducing menstrual blood loss are well-known and appear to have contributed to the recent reduction in hysterectomy rates for dysfunctional uterine bleeding (3,10).

Combined oral contraception

Combined oral contraception (COC) contains estrogen (ethinyl estradiol) and progestagen. It is highly effective: about 5 women per 100 typical use and fewer than 1 per 100 women with perfect use become pregnant per year (11). Only 11% of women aged 40-44 and 4% women aged 45-50 are using this method (8). It is likely caused by perception of serious health risk for these women.

Women over 40s who do not smoke can use COC when other contraceptive options are not available or acceptable to them. The advantages generally outweigh theoretical or proven risks. If the woman choses the method, more than usual follow-up may be needed. In general, the benefits to health and well-being far outweigh the side-effects and infreqent complications. Because of their safety and efficacy, combined oral contrceptives are available without prescription in many countries (3,12).

There are many potential benefits of the COC use by premenopausal women.

Over the high contraceptive efficacy, COC reduce the amount and duration of menstrual flow. It may be benefitial in increasing iron stores and decreasing the incidence of iron-deficiency anemia. It is considered as a primary therapeutic option for women with dysfunctional uterine bleeding and perimenopausal symptoms (hot flushes, night sweats, iritability, sleep disturbances etc.). There is also a potential of improving sexual performance by preventing poor vaginal lubrication and avoiding intercourse-relating contraceptive methods (2,8,13, 14).

The COC use has a well-established protective effect against ovarian and endometrial cancer. It offers around 50% reduction in risk of both cancers which lasts for many years after discontinuation of use (3,15). However, it has not be clear if this protection applies to the 10% of cases of invasive epithelial ovarian cancers that are hereditary (15).

There is considerable interest at present in the use of exogenous hormones to prevent subsequent osteoporosis. In women over 40, COC use is likely to have a beneficial effect on bone mineral density, althought there is no real evidence that it offers protection to younger women (3,16). Preparations with 15 mcg of etinyl estradiol were associated with a net loss of bone; with 15-25 mcg bone mass neither gained or loss; while doses of more than 25 mcg caused a net gain (17).

Beside benefits particularly relevant to premenopausal women, COC use have benefits common to all age users. It reduce the incidence of premenstrual syndome, dysmenorrhea, pelvic inflammation, ectopic pregnancy, endometriosis, uterine fibroids, fynctional ovarian cysts, benign breast disease etc. (18).

On the other hand, the *potential risks* of COC need to be assessed and discussed on individual basis in women over 40.

The main risk of the COC in elderly women is of cardiovascular disease. This risk increases with age and may also incerease with COC use. Accoding to WHO recommendations, in the absence of other adverse clinical problems, COC can be used until menopause (2,6).

Women with cardiovascular risk factors (smoking, hypertension, mygrene) are adviced against using COC (5). The risk of venous thromboembolism increases 3-6 times, but this translates into an extremely low absolute risk of death from this cause because of the rarity of this event among non-pregnant women of reproductive age. The absolute risk of venous thromboembolism attribute to use of COC rises with increasing age, obesity, recent surgery and certain forms of thrombophilia (3).

In women over 40 it is wise to prescribe the lowest dose of ethinyl estradiol available (11). Studies found no increase in mortality from

cardiovascular diseases among users of low dose oral contraceptives. The effect of modern low-dose combined oral contraceptives on myocardial infarction risk in older women is difficult to assess because so few older women now use this method. However, COC do increase the risk in women with an existing risk factor such as smoking, diabetes, hypertension or raised total serum cholesterol (5).

It is imperative to restrict COC use to premenopausal non-smoking women who have no risk factors for cardiovascular disease.

A small increase in breast cancer risk is also associated with current and recent COC use and should be considered in the light of an increased age-related background (2,3,19).

WHEN SHOULD A WOMAN BE ADVICED TO STOP CONTRACEPTION

The current recommendation is to continue with non-hormonal contraceptive methods until one year after the last menstruation if woman is aged over 50, or for 2 years if she is below the age of 50 (3).

Most COC users guidances recommend to switch to a non-hormonal contraceptive method after the age of 50 (14). Since COC use masks the menopause, it is offten difficult to determine when to stop contraception. One possibility is to stop it for several weeks at the age of 50 and then to mesure serum FSH and estradiol levels. If the FSH is high (>30 IU/L) and the estradiol is low, she is certainly perimenopausal and may be even postmenopausal. It is reasonably safe to stop contraception and to switch to HRT if she decides, for HRT natural or biologic estrogens are prefered to synthetic ones on the basis of having less impact to body metabolic process (7). If the FSH is within normal range the pills should be contained for another year and the procedure repeated. Alternative method is for women to stop COC use and to switch to a barrier method for six months; if regular menstruation recurs, she restarts the COC use and repeat the procedure after one year (2).

Copper-bearing IUD can be left in place until one year after cessation of menstruation if inserted at or after the age of 40. If an Lng-IUS has been inserted after the age of 45, it can be left in place in women who are amenorrhoic until two elevated FSH measurements are found after the age of 50. If Lng-IUS is used as the progestogen part of HRT, it must be changed after 5 years to guarantee endometrial protection (3).

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KONTRACEPCIJA ZA STARIJE ŽENE

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Dom zdravlja Niš

SAŽETAK

Savetovanje starijih žena o njihovim kontraceptivnim potrebama može da predstavlja izazov ali i posebnu vrednost. Neželjena trudnoća u ovoj starijoj uzrasnoj grupi može da predstavlja psihološki, ali i socijalni problem. Žene ovog životnog doba često imaju menopauzalne i zdravstvene probleme, pa nekontraceptivne zdravstvene beneficije različitih metoda kontracepcije mogu da predstavljaju terapijsku opciju. Ovo je odlično vreme za isticanje i negovanje zdravih stilova života (zaštita od polno prenosivih infekcija, prestanak pušenja, zdrav način ishrane, održavanje umerene fizićke aktivnosti itd).

***Ključne reči*: kontracepcija, starije žene**