Contraception in Perimenopause

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Abstract

Women in their forties are still potentially fertile, and pregnancy in this age group is attended with increased maternal mortality, spontaneous abortion, fetal anomalies and perinatal mortality. Contraception for women in this age group has special risks and benefits; both should be balanced to choose between the different options available. Recent epidemiological and clinical pharmacology studies have indicated the safety of extending the use of combined oral contraceptives (COCs) beyond the age of 35 years and up to menopause. Women who have reasons for avoiding COCs can use progestogen-only contraceptives like pills, depot injectables and implants. Implant combines high efficacy and long-term effect. Both copper-releasing and levonorgestrel-releasing intrauterine contraceptive device (LNG-IUD) combine the advantages of high efficacy and long-term effect. The reduced fecundity above the age of forty can allow extending the use beyond the accepted term, and up to one or two years beyond the menopause without the need for replacement. The levonorgestrel IUD has the advantage of reducing the amount of menstrual bleeding. The condom has the added benefit of protection against sexual transmitted diseases (STDs). Male or female sterilization is an excellent contraceptive option, provided that this approach is culturally acceptable and available at reasonable cost and low risk.

Key word : Contraception, Perimenopause

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The perimenopause is the period in the aging process in which a woman passes from the reproductive to the non-reproductive stage. This term refers to the 5-10 years before the menopause and continues up to 5 or 10 years afterwords[1]. Pregnancy in this period has special risks and certain social and psycho-

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logical implications. Maternal and perinatal mortality are high in the late reproductive years[1-5]. Fetal malformation, medical disorders such as diabetes mellitus and essential hypertension as well as obstetric complications are common in this age group[1]. For these reasons, the need for suitable contraceptives is great in the perimenopause years to avoid the risk of pregnancy. This article will address the contraceptive options available to women in their late reproductive years.

Physiologic changes during the perimenopause

During the reproductive life span physiologic functions steadily diminish, but after approximately 40 years of age the rate of decrease functions accelerate[6]. Despite reduction in the number of follicles, ovulation continues in up to 98 per cent of women over the age of 40 who have regular menstrual cycles[7], which emphasizes the necessity for the continued use of contraception.

Even though regular ovulatory cycles may be maintained, changes occur in the regulators of the hypothalamic-pituitary ovarian axis well before the time of ovarian failure. The earliest change is an increase in the follicle stimulating hormone (FSH). Secretion of FSH is under the control of the gonadotropin releasing hormone from the hypothalamus and is subject to negative feedback from the ovary through both inhibin and oestradiol. With advancing age there is increasingly irregular follicular maturation, and FSH concentrations which rise due to a decrease in negative feedback. Concentrations of oestradiol and progesterone do not significantly differ from those of younger women, concentrations of FSH increase by up to three times in women above 35 years of age, although luteinizing hormone (LH) concentrations remain either normal or become only slightly elevated [8]. As a result of impaired follicle development, oestrogen production becomes increasingly irregular, even in apparently ovulatory cycles.

The increase in FSH concentrations reduces the oocyte maturation time, which causes a shortening of cycle length. At other times there may be insufficient oestradiol production from the follicale to trigger an LH surge, and the failure of ovulation may delay menstruation. Eventually, no follicles are able to respond to the increasing concentrations of gonadotropins, and in the presence of low concentrations of oestradiol, the menopause follows. After menopause, the increase in FSH concentrations is relatively greater than LH, with FSH levels increasing 10-15 times, whereas concentrations of LH are only three to five times higher[9].

Contraceptive options of perimenopausal women

Barrier methods

Condoms, diaphragms, caps and spermicides are relatively cheap methods of contraception which do not carry any special advantages for perimenopausal compared with younger women. One of their main benefits is protection against sexually transmitted diseases, especially the human immunodeficiency virus (HIV)[10]. It has been estimated that around 120 million people will be infected with HIV by the year 2000, and the majority of these will be from Africa, Latin America, India and South East Asia[11]. Perimenopausal women are equally at risk of contracting the virus, and this factor may make condoms the safest method in many developing countries. Other advantages of condoms are that they are usually easy to obtain, are a reversible method of contraception and are comparatively cheap.

Natural methods

There are very few data on the applicability of natural methods of fertility regulation in the late perimenopause. Irregular menstruation and increasing frequency of anovulation make the use of methods like the safe period or mucus method rather difficult [12,13]. However, perimenopausal women who are used to them can continue using-them after receiving counseling.

Intrauterine contraceptive device (IUD)

The long-term effect of modern-time copper IUD nicely suits the needs of women over the age of 35 years who are usually family limiting rather than spacers. The use of the IUD until the menopause is applicable. However, irregular bleeding and pelvic pain may occur[14].

There are very few studies on the long-term use of IUD in women above the age of 35 years. A randomized clinical trial involving 288 women over 35 years using either Nova-T or Copper-T-200 with a minimum of a 5- year follow-up was found to be safe [15]. In another comparative study which involved women over the age of 35 years at the time of insertion of the IUD (mostly copper IUD), there were fewer

IUD removals during 9 years of observation, and fewer side effects in the older group of women compared with women under 35[16].

The main problem with the IUD in this age group is that it will accentuate the already increased probability of uterine bleeding[14]. In this age group a policy of liberal removal in case of bleeding or pain has been advised[17].

The levonorgestrel releasing IUD (LNG-IUD) combines high efficacy with the reduction of the amount and duration of menstrual bleeding[1]. The latter effect is due to a local suppressive effect of levonorgestrel on the endometrium. In a large multicenter randomized study there were 306 women aged over 35 years at the time of insertion[17]. The life-table analysis performed after 5 years of use revealed that, compared to copper releasing IUD users, these women had significantly fewer removals because of bleeding. The cumulative gross rate of removal for bleeding problems was 25.4 per 100 women with the copper IUD and 9.0 per 100 women for the LNG-IUD. The LNG-IUD, will provide a good option for women who are having borderline anemia, or likely to develop it because of poor nutrition.

Oral contraceptives

Oral contraception, particularly a low dose oral combined pill, is becoming an increasingly more popular form of birth control for healthy perimenopausal women as the safety of this method has become well established, especially for women who are non-smokers and who have no cardiovascular risk factors[1]. Although oral contraceptives have some adverse effects, they also provide benefits apart from the contraceptive action which may have a favourable effect on the health of a perimenopausal woman[18].

Oral contraceptives are extremely effective when properly used. The failure rate of the new multiphasic and low-dose monophasic combination pills is approximately less than 1 per cent per annum. The lower-dose preparations require that the tablet be taken at the same time each day, and this time restraint is even more strict for progestogen-only pills[19].

Progestogen-only oral contraceptives may be considered for perimenopausal women who smoke or who have other contraindications to oestrogen use, or who suffer oestrogen-related side effects. Cycle control is not as good as with combined oral contraceptives, and a irregular bleeding pattern is the main reason for discontinuation of treatment. However, this form of contraception may be suitable for many perimenopausal women who contraindicate the use of estrogen[19].

Combined injectable contraceptives

Two types of injectable monthly contraceptives are entering public use in a number of countries. The first contains 25 mg of medroxyprogesterone acetate plus 5 mg of estradiol cypionate, and the second contains 50 mg of norethindrone enanthate plus 5 mg of estradiol valerate[1].

These types of injectable are not available in Thailand. There are no data about their use by perimenopausal women.

Injectable contraceptives

The most widely available injectable contraceptive is depot medroxyprogesterone acetate (Depo-Provera). This injectable progestogen acts by inhibiting ovulation, and a single 150 mg dose administered intramuscular produces pharmacological concentrations of progestogen which persist for 3-4 months. It is also a highly effective method of contraception [20]. The main problem with this method is irregular vaginal bleeding, and is an unwelcome occurrence and raises more concerns. Irregular bleeding causes up to 60 per cent of women to discontinue treatment within the first year of use[20]. However, problems with irregular bleeding diminish with time, and up to 50 per cent of women become amenorrhoeic after 1 year [21]. Apart from this, medroxyperogesterone acetate has relatively few side effects, and the possible delay in fertility after the discontinuation of treatment is rarely a problem for perimenopausal women.

Contraceptive implants

The sustained-release levonorgestrel contraceptive implant (Norplant) consists of six silastic implants, each of which contains 36 mg of levonorgestrel. A newer preparation consists of two rods containing a total of 70 mg of levonorgestrel (Norplant-2), and are easier to insert and to remove than the older implant. The other is a single rod implant containing 68 mg of ketodesogestrel (Implanon)[1,22, 23]. They acts by inhibiting ovulation and is highly effective, with the lowest expected failure rates. Whilst implant is highly effective, skill is required to insert it and also to remove it if problems occur. The most common side effect leading to discontinuation of treatment is that of irregular bleeding, which means that this is another form of contraception which will be undesirable for some perimenopausal women. About

40 per cent of women become amenorrhoeic, and abnormal bleeding patterns develop in up to 40 per cent in first year of use(22). The advantages for perimenopausal women are the low incidence of metabolic side effects and the long duration of action. Although implant is associated with a high incidence of irrigular bleeding, it is not usually heavy. The use of implant may reduce blood loss and benefit anemic perimenopausal women.

Sterilization

Sterilization has an advantage over contraceptive methods which must be used on a regular basis, and has few unwanted effects. It can be performed in women by the use of clips or bands, or by tubal resection, ligation or cautery. The can be done under general or regional anaesthesia, often in an outpatient or day care setting(24,25).

After the age of 40 years, male or female sterilization is a good choice if the desired family size has been achieved. The need for reversibility should be low, but potentially reversible methods are still preferred whenever available(1). There has been some suspicion that tubal sterilization causes premenopausal dysfunctional bleeding. However, the preponderance of evidence indicates that any association of tubal occlusion by clips or rings with menstrual bleeding problems is coincidental rather than causal(26).

The chance of a perimenopausal woman regretting her decision to have a permanent form of contraception is less than that of a younger woman, and the likelihood of a failed procedure also appears to be lower. For these reasons, sterilization should be the first choice in these women.

SUMMARY

There are no clearly established guidelines for when it is safe for a perimenopausal woman to discontinue contraception. It is suggested that contraception should be continued for women who are 50 years or old until 1 year of amenorrhoea, and for younger women, for a period of 2 years(1). If a perimenopausal woman is using oral contraceptives, it may be advisable to change to a barrier method for a few months at around 50 years of age before measuring gonadotropin concentrations to determine her menopuasal status(1). However, sterilization should be the first choice to consider in perimenopausul women who have completed their family size.

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การคุมกำเนิดในสตรีในวัยใกล้หมดระดู

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การคุมกำเนิดในสตรีวัยใกล้หมดระดูยังมีความสำคัญและจำเป็น การตั้งครรภ์ที่เกิดขึ้นในวัยนี้จะมีผลต่อสุขภาพของมารดาและทารกโดยรวมการเลือกวิธีคุมกำเนิดที่เหมาะสมจะช่วยให้คุณภาพชีวิตของสตรีวัยนี้ดีขึ้น การพิจารณาถึงความเสี่ยงและประโยชน์ที่จะได้รับจากการคุมกำเนิด แต่ละวิธีควรพิจารณาสตรีเป็นราย ๆ ไป ในกรณีที่มีภาวะเสี่ยงต่อโรคหลอดเลือดและหัวใจ การสูบบุหรี่ หรือมีปัจจัยเสี่ยงอื่น ควรที่หลีกเลี่ยงการใช้ฮอร์โมนรวม และใช้วิธีอื่นแทน ซึ่งการทำหมันดูเหมือนจะเป็นวิธีที่ดีในสตรีวัยนี้ เนื่องจากมีภาวะแทรกซ้อนต่ำ และค่าใช้จ่ายน้อย

คำสำคัญ : การคุมกำเนิด, สตรีในวัยใกล้หมดระดู

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