

used to control for cohort (breast feeding may be declining in a society overtime), fecundity (older women may breast feed longer because they are less likely to become pregnant), or other normative aspects of age (it may be considered inappropriate for an older woman to breast feed). High-parity women have demonstrated high fecundity, and high parity may signal attachment to more traditional values and behaviour.

The use of modern contraceptives is consistently associated with a reduced likelihood of initiating and shorter durations of breast feeding. Work by Gomes de Leon and Potter has demonstrated clearly that the timing of initiation of contraception and weaning are closely related, either because women think that breast feeding and contraceptive use are incompatible, or because they view contraception as a substitute for lactational sub-fecundity. Millman has interpreted her analysis of Taiwanese data as providing support for the notion that women substitute contraception for breast feeding to avoid pregnancy. She argues further that the physiological effect of oestrogen in oral contraceptives on the quantity of breast milk is not a major determinant of weaning.

ACTION PLAN

The World Health Organisation and UNICEF along with other organisations committed to the support, protection and promotion of breast feeding have appealed to health services personnel to establish an environment in health facilities where positive breast feeding practices are encouraged.

Changes in maternity services improve rates of exclusive breast feeding in the first weeks of life. Ways to foster breast feeding include:-

- Informing all pregnant women how and why to breast feed.
- Helping mothers to initiate breast feeding within half hour after normal delivery.
- Allowing rooming-in 24 hours a day.
- Encouraging breast feeding on demand and
- Giving the infant no food or drink other than breast milk, unless it is medically indicated, until the age of 4 to 6 months.

Other measures will, nevertheless, be important to ensure that exclusive breast feeding is maintained during the first four to six months of life. These measures include:-

- Protecting the right of working women to breast feed. Malawi has done very well here by providing three months paid maternity leave for all Government employees every three years.
- Continuing to encourage and support breast feeding through groups and the health services.

Health practitioners have an important part to play in promoting and supporting exclusive breast feeding. However Burgess (1977) suggested that "The education of health workers, especially doctors, about managing breast feeding problems, has been sadly neglected. Sometimes health workers do not practice what they preach, this leads them to be less confident to counsel women to breast feed. Health workers often set bad examples by bottle feeding their own children.

The health and fertility implications of breast feeding patterns in developing countries have received much attention in recent years. Prompted in part by the perceived increasing popularity of artificial feeding during the 1970s and by reported declines in average durations and proportions of women initially breast feeding in several developing countries, health organisations such as WHO and UNICEF have placed breast feeding promotion high on their health-policy agendas. Given the clear health advantages of breast milk for the infant and lactation's suppressive effect on fecundity, a decline in the extent of breast feeding is unwelcome news in any country in which attempts are made to improve the health of its children or for those countries with modest contraceptive use in which it is desired to reduce the population growth rate, such as Malawi. The time for action is now.

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Progesterone Only Contraception

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In 1960 the first contraceptive pill became available. By today's standards it contained extremely high doses of both estrogen and progesterone. It soon became evident that the estrogen component of the pill was causing cardiovascular complications in some women.

Research into using progesterone alone as a safer form of contraception was intensified. The first progesterone only pill was introduced in 1969 and The International Planned Parenthood Federation recommended the use of depo-provera as a safe, effective contraceptive in 1975.

Meanwhile the dose of hormones used in the combined pill was drastically reduced, which has made the risk of cardiovascular complications almost disappear. So we are now in the fortunate position of having both safe estrogen containing pills, together with a variety of safe progesterone only methods.

The majority of women using hormonal methods of contraception are healthy and fit. However there are a tiny minority who are best advised not to use an estrogen containing pill, but even these women would be safer using such a method than becoming pregnant.

Progesterone only contraception does not have any of the side effects associated with estrogen usage. In particular it does not:

1. Interfere with lactation
2. Cause an elevation of blood pressure
3. Change the blood clotting factors
4. Interfere significantly with liver, carbohydrate, or fat metabolism

Thus, these methods can safely be used by women with the following medical problems, whose disease is not so severe as to warrant sterilisation.

1. High blood pressure, even if this is high enough to require medication
2. A past history of venous thrombosis
3. Heart disease
4. Diabetes
5. Sickle cell disease

Progesterone alone is often advised for women who develop unacceptable estrogen related side effects while on a combined pill. These are rare, but the commonest is a rise in blood pressure to over 140/90. Many women stop their pills because they wrongly attribute a symptom, such as palpitations, headache or fever, to the new pills they are taking. Reassurance is what they require, not confirmation of their fears by being told to stop the pills.

How does progesterone alone work as a contraceptive?

Depo provera is the only method which consistently inhibits ovulation. This is achieved by preventing the cyclical release of LH and FSH, exactly the same mechanism as that of the combined oral contraceptive pill (COC). Ovulation is sometimes inhibited by the other methods, but this cannot be relied upon.

The other major contraceptive effects of progesterone are its local effects on the genital tract. These are:

1. Making the cervical mucus thick and impenetrable by sperm.
2. Altering tubal function, so that tubal transport of a fertilised ovum is delayed.
3. Making the endometrium unreceptive so that implantation does not occur.

What are the different progesterone only methods of contraception available in Malawi?

The progesterone only pill (POP). The POP available here is called Ovrette. Its progesterone content is $\frac{1}{4}$ that of the combined pill, Lofeminal. Because the dose is so low it is of vital importance that the pills are taken absolutely regularly. If a woman is more than 3 hours late with her pill, its efficacy is diminished. She should continue with the method, but should either abstain from intercourse or make sure her partner uses condoms for any act of intercourse within the next 48 hours.

The POP is one of the least effective methods of contraception because the chance of "user error" in the form of missing or being late with pills is so high. It is therefore unsuitable for adolescents, and for anyone for whom a pregnancy would be a disaster.

Depo-provera. This is an injectable contraceptive containing medroxy progesterone acetate which is given in a dose of 150 milligrams intramuscularly every 3 months. There is thus no possibility of "user error". It is important that the injection site is not massaged after the injection is given, as this can promote too rapid absorption of the hormone. It is the safest, most effective contraceptive currently available.

Norplant. This method should be available here in the near future. It is a subdermal implant consisting of 6 silastic capsules, each the size of a matchstick, which contain levonorgestrel. The hormone is slowly released over a period of at least 5 years, which is the major advantage of this method. During the first year ovulation is inhibited in about 60% of women. Thereafter, as the blood levels decline, ovulatory cycles become more frequent.

The fact that it can be easily removed if pregnancy is desired, or if side effects become unacceptable, make it an extremely acceptable method.

Side Effects

What are the main side effects of progesterone only methods?

The only real problems are menstrual disturbances.

Women have to be told that their periods may be completely erratic, and, especially when depo-provera is used, they may stop. 40% of women develop amenorrhoea after one year of using depo. Although less common, amenorrhoea can also occur during use of Norplant or the POP. A minority of women have quite heavy irregular bleeding. These problems however are acceptable to many women once they are reassured.

Amenorrhoea is beneficial to women's health, as long as it is not due to pregnancy. It is often thought of as a problem peculiar to the use of depo-provera. In actual fact women taking the COC do not experience true periods. They bleed only because tablet taking is discontinued for 7 days

each month. Women who receive depo have no "pill free week", therefore it is not surprising that many have no periods.

Perhaps we should ask the question "Is regular menstruation normal"? The answer to this is probably no. Incessant menstruation is a feature of the "modern world", but this does not make it normal. In the past, prolonged periods of breast feeding followed by a further pregnancy, meant that women experienced relatively few menstrual periods during their lifetime. The abandonment of these breast feeding practices together with smaller family size, has meant women are experiencing many more menstruations than maybe they were supposed to! Incessant ovulation and menstruation are predisposing factors for both ovarian and endometrial cancers. The COC and depo-provera protect against both these cancers.

Therefore women should be reassured that having no periods is GOOD news.

The other problem with depo provera is its association with a delay in the return of fertility. This is to be expected as it has a duration of action of at least 12 weeks, which may be longer in some women. However there is absolutely no evidence that it causes permanent infertility. The majority of women will conceive within 6 months of their last injection, and by 2 years there is no difference in fertility between women who have received depo and women who have received no method. It is important to realise that the commonest cause of infertility is a sexually transmitted disease. Such diseases are common in Malawi, are poorly diagnosed and very poorly treated. By its effect on cervical mucus, progesterone does in fact have some protective effect against infection acquired sexually.

As would be expected, fertility returns rapidly on stopping the POP. Women who discontinue Norplant also have a rapid return of fertility, 75% of women becoming pregnant within one year.

Contraindications

Are there any women for whom specific progesterone only methods are contraindicated? The POP is not advisable for the adolescent, because of its increased "user error" failure rate.

As the POP does not inhibit ovulation, it will not prevent ectopic pregnancy, and is not advised for anyone with such a history. It is rarely associated with the formation of painful ovarian cysts, and is best avoided by women who have had such problems.

The above do not apply to Depo or Norplant, which can be used by any woman who will accept possible menstrual disturbances. Women using depo have to understand the possibility of a delay in the return of their fertility after their last injection.

Conclusion

Progesterone on its own is an effective, safe method of hormonal contraception. There are no absolute contraindications to using depo provera or Norplant, and both can be used when an estrogen containing method is contraindicated. A little more care has to be taken with the POP, mainly because "user failure" can take place. The main problems with all these methods are menstrual irregularities, but many women are prepared to accept these once they understand they are not dangerous to their health. Amenorrhoea is beneficial to women's health, if caused by a contraceptive method, and not by its failure.

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