

Efficacy and acceptability of depo-medroxyprogesterone acetate injection

As a method of contraception in Saudi Arabia

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ABSTRACT

Objective: To determine the efficacy and acceptability of Depo-Medroxyprogesterone acetate (depo-provera) among the women using that method of contraception at King Faisal Military Hospital in the south-west region of Saudi Arabia.

Methods: A preliminary retrospective and questionnaire analysis of 165 Saudi women who had depo-provera as a method of contraception at the contraception clinic of King Faisal Military Hospital over a period of 2 months.

Results: The mean age of the women was 31.21 years and the mean parity 6.77. There was no pregnancy reported during the period of use of the contraceptive method which ranged from 3 months to 7.25 years. The side effects were mainly irregular spotting (69%), continuous bleeding per vaginam (7%), amenorrhoea (8%) and menorrhagia (1%). The rest reported normal menstrual pattern. Irregular spotting was common in women who had used the method for less than 2 years while amenorrhoea was the most common menstrual

abnormality after 3 years of use. The other complaints included weight gain, loss of hair, abdominal pain and backache. The side effects were not acceptable to 4% of the women and they tried other methods of contraception. Thirteen percent of the women became pregnant after stopping the injections within intervals varying between 6 months to 2 years. Seventeen percent were using the method for the 2nd time.

Conclusion: Depo-provera is a very effective form of contraception in our community. While a few of the patients (4%) in our series would try other methods if not happy with the side effects, the majority were prepared to cope with the side effects as long as the desired prevention of pregnancy was guaranteed. Further studies are needed to validate these findings.

Keywords: Depo Medroxyprogesterone acetate (depo-provera), efficacy, acceptability, preliminary study.

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Over the last decade, there has been an increase in the demand for a form of contraception in this community. However the best form of contraception is that which is very effective, with few side effects acceptable to the community. Although the pattern of fertility in Saudi Arabia has been reported by some authors,^{1,2} the only data on the prevalence of

contraceptive use was from the western region of the country.³ Medroxyprogesterone acetate (17 alpha-hydroxy-6-methylprogesterone acetate) is a progestogen derived from progesterone. In humans, it has a prolonged progestational effect when administered by intramuscular injections. It suppresses the secretion of pituitary gonadotrophins

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which in turn prevents follicular maturation, producing long-term anovulation in the reproductive age woman. Depo-Provera (depot medroxyprogesterone acetate) has been approved for use as a contraceptive in many countries over the last 3 decades,⁴ and by the US Food and Drug Administration (FDA) only in 1992. Although it is regarded as an option for the disadvantaged in the developed countries, there has been considerable use of this contraception in all social and ethnic groups in New Zealand.⁵ It offers a safe, effective and long-acting injectable method of contraception. It also requires no special training unlike the other long acting methods such as intrauterine contraceptive device and the subdermal implant such as Norplant. The side effects are menstrual disturbances, weight gain and headache which are the reasons for discontinuing its use.⁶⁻¹⁰ In our environment, a high percentage of women are multipara (about 40% - from the hospital statistics). Also from the statistics of the contraception clinic of the Department of Gynecology, King Faisal Military Hospital in Khamis Mushayt, Kingdom of Saudi Arabia, it seemed as if depo-provera is the most popular choice of contraception in that community. About 85% of patients coming for contraception opted for depo-provera, while about 10% tried the intrauterine contraceptive device (IUCD) and others the pill. We therefore decided to conduct a preliminary study over a period of 2 months to assess the efficacy, and the acceptability of depo-provera.

Methods. King Faisal Military Hospital is a referral center for military personnel and their dependants in the southern region of Saudi Arabia. The Department of Obstetrics and Gynecology is a very busy unit with a delivery rate of over 5000 per year. Between September 1 to October 30 1999, the hospital charts of patients who presented at the contraception clinic were reviewed. Relevant data reviewed included the demographic data, as well as the questionnaire regarding depo-provera injections; for example, how the patient heard about depo-provera, whether they knew about the side effects and whether or not they were acceptable. They were also asked about the desired period of contraceptive use. At the first visit, the patients were interviewed by the doctor with the husband in attendance in most cases. Details regarding past medical and surgical histories as well as previous contraception were taken as well as the gynecological and obstetric history. The date of last menstrual period was recorded. The various forms of contraception available were then introduced to the women including depo-provera, the combined oral contraceptive pill, the progesterone only pill, and IUCD. The side effects of these contraceptive methods were thoroughly explained and the women were then asked to make a choice. Sometimes they were given a further appointment so

Table 1 - Distribution of the studied women according to age and parity groups.

Characteristic	Number	%
Age Group (years)		
20 - 24	23	14
25 - 29	40	24
30 - 34	32	19
35 - 39	44	27
40+	26	16
Parity		
1	3	2
2-5	53	32
6-9	84	51
10+	25	15

that they could have time to think about their choice. Those who chose depo-provera were systematically examined. A pregnancy test was performed prior to the administration of the first dose of depo-provera. They were given an appointment after 3 months for a repeat course. At the follow up appointment, usually with the nurse, the patients were asked if they had any complaints or experienced any of the side effects. They were also asked about any change in the menstrual pattern. Those patients who chose to see the doctor for their complaints were taken to the gynecologist in the clinic. Those with irregular menstrual spotting were given high dose estrogen, for example 4 tablets of microgynon 30 daily for 7 days to induce endometrial growth followed by withdrawal bleeding.

Results. One hundred and sixty five Saudi women were seen at the gynecology clinic and had depo-provera injection during the study period. There was no pregnancy recorded during the study period. The characteristics of women in the study are shown in Table 1. About 38% of the women were under 30

Table 2 - Result of questionnaire about depo-provera.

Variable	Number	%
Breast feeding at the time of first injection.	99	60
Contraception at the request of patient.	107	65
Has heard about depo-provera before.	132	80
Has heard about side effects.	49	30
Second time users.	28	17
New pregnancy after stopping depo-provera.	21	13
Sought other methods.	7	4

Table 3 - Duration of use of depo-provera.

Duration	Number	%
First injection	22	13
Less than 1 year	58	35
1 - 2 years	43	26
2 - 3 years	18	11
3 - 4 years	17	10
> 4 years	7	5

years of age. Table 2 shows the result of the questionnaire. At the time of the first injection, about 60% were breast feeding their babies while the rest were either bottle feeding or having complimentary type of feeding. In 65% of the cases, the contraception was at the request of the patient. Eighty percent of the women knew about depo-provera while about 30% had heard about the side effects of the contraceptive method. Only 4% of all the patients in the study sought other methods of contraception as a result of unacceptable side effects. The duration of use of depo-provera is shown in Table 3. While about 35% of the women had used the method for less than 1 year, 5% had used it for more than 4 years. Table 4 shows the menstrual pattern in these patients. While about 69% of the women had irregular spotting, 15% reported normal menstrual pattern.

Discussion. Our preliminary study has confirmed the efficacy of depo-provera as a form of contraception as there was no pregnancy recorded during the study period. This was also the experience of other authors.^{11,12} Our patients were selected during a period of two months, and therefore contained a combination of short and long term users. However, with good compliance, it is expected that the desired prevention of pregnancy will be achieved considering the mode of action of the drug. The major concern of depo-provera is discontinuation as a result of unwanted menstrual abnormality.^{5,7,8,10} In our study only about 4% of the patients were unhappy about the side effects and therefore discontinued the medication. This rate of discontinuation is lower than those quoted by other authors.¹¹ The main menstrual abnormality in our patients were irregular spotting (69%) and amenorrhoea in 8%. The irregular spotting was successfully treated in most of the patients and this may partly explain the reason for the low discontinuation rate. While amenorrhoea was common with patients who had had the injection for more than 3 years, irregular spotting occurred in women using the method for less than 1 year. Lei et al¹¹ studied the effects of pretreatment counselling on the discontinuation rates in Chinese women given depo-provera for contraception and concluded that

Table 4 - Menstrual pattern among women on depo-provera.

Menstrual pattern	Number	%
Irregular spotting	113	69
Amenorrhoea	13	8
Continuous bleeding vaginam	11	7
Normal periods	24	15
Menorrhagia	4	1

counselling on the expected side effects greatly increased the acceptability of this form of contraception. In our study population, 30% knew about the side effects of the drug, while 80% had heard about the method of contraception prior to their first clinic visit. Perhaps the close military community in our study group had contributed to this high percentage of awareness. This, together with the counselling that was given to our women at each visit made the side effects acceptable to many. It is interesting to note that this method of contraception is virtually unknown in other parts of the country.³ In the World Health Organization multicenter trial the discontinuation rates varied markedly between centers, with low rates in Karachi and Lusaka.^{13,14} It seems as if cultural differences are important in the decision to continue depo-provera, while women in the developed countries may be less tolerant to the side effects.^{13,14} It is interesting that in our study subjects, 24 women (15%) had used the method for more than 3 years while 7 women (5%) had used it for more than 4 years. This may suggest that some of our patients were able to cope with the side effects. In a review by Paul et al,⁵ short term (3 months) use of depo-provera was the norm (30%) although 7.5% had been using it for more than 6 years. It was also noted that 17% of the total number of our patients were second time users while 13% got pregnant after discontinuing the drug. This may indicate that some patients were quite happy with the method of contraception and also that patients do get pregnant again after stopping the contraception. The mean age and parity of our patients was 31.21 years and 6.77. At the same time, about 62% of our patients were more than 30 years of age while about 65% had more than 6 children. It may be inferred that the drug is favoured by older, high parity women at the end of childbearing and this observation is supported by other authors.^{4,15} Nevertheless, the special advantages of depo-provera for teenagers have been described.¹⁶

We conclude from this observational study that depo-provera is a very effective form of contraception in our society. The menstrual side effects are treatable medically and together with the pretreatment counselling, depo medroxyprogesterone acetate is very well accepted by women in our

community. A further comparative study with other forms of contraception will be more informative and beneficial.

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