EVALUATION OF NORPALNT IN NEPALESE WOMEN

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ABSTRACT:

This was a prospective study done in Marie Stope clinic, Chabhill, Kathmandu. One hundred women who had Norplant insertion between May 1996 to April 1997 were followed up for a year for its side effects. The age, ethnic group, number of living children, literacy, socioeconomic status of the women who has Norplant insertion were also analyzed. Norplant was found to be most popular in age group of 21-30 years (68%). Maximum number of acceptors were in Chettri community (32%). It was a popular contraceptive in women who had two or more children and those who came from low socioeconomic group and were illiterate. Among side effects, menstrual irregularity was commonest (67%) headache was present in 12%, weight gain and depressive symptoms each was present in 10% of women. 2% had local infection at insertion site and 1% of woman had allergic reaction.

Key words: Norplant, Contraceptives, Side effects.

INTRODUCTION:

Population growth is one of the major problems in Nepal. According to last census in 1991, the growth rate of Nepal is 2.1% which means that Nepalese population is going to double in 26 years time. This is less than half of the duration which was required for last doubling of population between 1911-1971.

The most important reasons for this population growth are high birth rate and declining death rate. The reasons behind high birth rate are poverty, low literacy, lack of awareness and unavailability of family planning method.

Although, according to the recent survey (FHS 1996) about 98% of women are aware of at least one method of family planning, only 35% of them are currently using any of them. Permanent sterilization has remained the most popular method. Over the years the use of contraceptives has increased. The increase is mainly in the use of Depo-Provera and Norplant.

OBJECTIVE:

The main objective of this study was to see in which group and type of population Norplant is popular and to assess the type and frequency of side effects they experience after Norplant insertion.

Norplant is basically Levonorgestrel kept in six small silastic sticks which are implanted subdermally in upper arm. It slowly releases progesterone in the circulation. It acts by suppressing ovulation. It makes cervical mucus thick so that sperm can not penetrate it. Norplant is effective for five years and has less than one percent failure rate.

METHODOLOGY:

It was a prospective study which was done in Marie Stopes Clinic, Chabhill. One hundred clients who had Norplant insertion between the period of May 1996 to April 1997 were followed up for one year.

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The side effects experienced by them in one-year time were recorded. The age group, cast, social and educational status and parity of the women who had Norplant insertion were also analyzed.

RESULTS:

The results of the study are shown in following tables.

Table 1 showing the ethnic group:

Ethnic Group	Numbers	Percentage
Brahmin	26	26%
Chetri	32	32%
Newars	17	17%
Others	25	25%
Total	100	100%

This table shows Norplant users were highest in Chetri ethnic groups.

Table 2 showing Age distribution of Norplant acceptors

Age Group	Numbers	Percentage
Up to 20 years	15	15%
21 - 30	68	68%
31 - 40	17	17%
Total	100	100%

Maximum number of Norplant acceptors was in 20-30 age groups. The lowest age of Norplant acceptor was 17 and the highest age was 40.

Table 3 showing relation with education of Norplant acceptors:

Education	Number	Percentage
Literate	40	40%
Illiterate	60	60%
Total	100	100%

One who can read and write is considered literate in our study.

Table 4, showing the number of living children of Norplant acceptors:

Number of children	Number	Percentage
One	15	15%
Two	55	55%
Three	20	20%
More than three	10	10%
Total	100	100%

Norplant was more popular in those women who had completed their family.

Table 5, showing economical status of Norplant acceptors:

Economical	Num.	Per.
Lower socioeconomic group	60	60%
Middle socioeconomic group	30	30%
High socioeconomic group	10	10%
Total	100	100%

Norplant was found most popular in lower socioeconomic group.

Table 6, showing side effects experienced by Norplant acceptors:

Side effects	Num.	Per.
Changes in menstrual cycle	65	65%
headache	12	12%
Weight gain	10	10%
Depressive symptoms	10	10%
Breast pain	2	2%
Local infection in implantation site	2	2%
Local allergic reaction	1	1%

Table 7, showing different types of contraceptives accepted during May 1996 to April 1997.

Contraceptives	Number
Female voluntary sterilisation	329
Intra uterine contraceptive device	30
Depo provera	527
Oral contraceptive pills	610
Condoms	8260
Norplant	100

DISCUSSION:

Norplant consists of six small flexible capsules made of silastic tube, which contain synthetic progesterone (Levonorgestrel). These capsules are surgically implanted under the skin of woman's upper arm. These implants slowly release progesterone in the circulation and provide contraceptives protection for five years. It is effective within 24 hours of insertion and normal fertility returns within 24 hours of its removal. It prevents pregnancy by making cervical mucus thick and suppressing the ovulation.

Norplant was found to be the fifth popular contraceptive method family planning (Table 7) among the women coming to our centre. The maximum number of Norplant insertion was in the 21-30 age group (Table 2). Norplant was more popular in Chetri community. (Table 1.32%). The reason is not known. Perhaps the area served by our centre has more Chetris. Higher number of Norplant acceptors were in illiterate people (Table 3 - 63%). This could be due to selection of a method, which does not require every day or very frequent personal involvement of the client, and at the same time a long-term family planning protection given by Norplant. Norplant was found to be a popular contraceptive method in those women who had completed their family. (Table 4). These women were those who did not want to have any further children and at the same time due to various reasons, did not want to have permanent sterilization.

In our study Norplant was found to be a popular method of contraception among the poor people

(Table 6). Who's monthly income is less the 1600 (sixteen hundred) rupees.

Among the side effects experienced by the hundred women studies, menstrual problem was the commonest (Table 7.65%). 21% women came back with the complain of bleeding persistent for one week, 39% for more than two weeks and 27% developed for more than three weeks. 7% of women amenorrhoea. Those who complained of bleeding were given a course of NSAID (Brufen 400 mg three times daily for 5 days). All of them responded well to the treatment. Increased and prolonged bleeding during first ninety days of Norplant insertion is a commonest side effect (83% in a study done in Florida, 65% in a study done in Indonesia)^{1,2}. Bleeding usually decreases with time and is less problematic by the end of one year.

Headache is the second most common side effect experienced by Norplant users of our study. It was present in 12% of cases and was of mild type.

Weight gain was noted in 10% of Norplant users. Among 10 women, 3 had more than 3kg weight gain. within 6 months of Norplant insertion. 7 women had less than 3kg weight gain.

Depressive symptoms were experienced by 10% of Norplant users. 2% women complained of breast pain and same number of women had local infection at insertion site. Local allergic reaction necessitating removal of Norplant was present in 1% of case.

No case of acne, jaundice, ectopic pregnancy and lower abdominal pain was noted in our study.

Conclusion:

Norplant is highly effective, safe and economic family planning method. It is popular more in lower socioeconomic class, illiterate and young women (21-30) who had completed their family. The most common side effects of Norplant are irregular uterine bleeding which is usually controlled by the end of one year. Simple medication as NSAID and haematinic are enough to control the bleeding. Proper counseling about the side effects is essential so that

client can cope with it in better prepared way. Headache, weight gain, depression, local infection and allergic reaction are other minor side effects which a Norplant user might experience. No ectopic pregnancy, jaundice, acne was noted in our study.

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