

First Year's Experience with Norplant

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Abstract: *Health Promotion Center Region I introduced Norplant for family planning clinics in June 1, 1986, and a clinical study of Norplant was carried out. Characteristics of most acceptors were aged between 18-40 years, lived in Bangkok, two parities, low monthly incomes and primary educational levels. Most previously used oral contraceptive methods. Health personnel were the most important source of information on Norplant. During 1 year follow up, the most found side effect and menstrual pattern was irregular bleeding. The follow up rate was high in the first week, 96.9%, and then declined respectively. The rate after one year follow up was only 54.32%. The continuation rate was high, 99.38% during the one year, and no pregnancy occurred among acceptors. Therefore, Norplant is a good contraceptive method which can be used effectively in family planning programmes. (Thai J Obstet Gynaecol 1989;1:71-75)*

Key words: first year experience, Norplant

Health Promotion Center Region 1 introduced *Norplant* for family planning in June 1, 1986. The author had studied all acceptors clinically from June 1, 1986 to May 31, 1987, a follow-up period of one year. During that period, observations were made on the characteristics of the acceptors, their incomes, their educational levels, their previous contraceptive methods, their sources of information on *Norplant*, its complications and side effects, the follow-up rate, the acceptor's menstrual patterns, their continuation rate on the use of it, as well as their pregnancy rate. This study should be considered as a guideline for introducing

Norplant in family planning and as a comparison to other previous studies.

Materials and Methods

The *Norplant* system consists of six silastic tubes/capsules. Each tube is 34 mm long, 2.41 mm in diameter and contains 36 mg of levonorgestrel. Both ends of the tube are sealed. The implantation area is the inner surface of upper arm. The insertion of those 6 tubes, in fan shape, is approximately 6 - 8 cm above the elbow.

The criteria for the selected acceptors of this study were between 18 - 40

years of age, no contraindication for progestin-only contraception, having at least one child, no lactation, no pregnancy, and accepting the subdermal implantation.

Each acceptor was given a full explanation on the pros and cons of the method. Their physical and pelvic examination were normal.

The follow-up visits after the implantation were scheduled for the first seven days, first month, third month, and sixth month. After that, it was then every six months.

Results

The characteristics of the acceptors are shown in Table 1-4.

The oral combined pill was the most used of their previous contraceptive

Table 1 Age distribution of the acceptors

Age	Number	Percent
below 20	11	6.8
21 - 25	40	24.7
26 - 30	75	46.3
31 - 35	21	12.9
above 35	15	9.3
Total	162	100

Table 2 Parity

Parity	Number	Percent
1	62	38.3
2	74	45.7
3	22	13.6
4	2	1.2
5	2	1.2

Table 3 Incomes of acceptors, in Baht

Income	Number	Percent
Below 1000	5	3.1
1001 - 3000	68	42.0
3001 - 5000	47	29.0
5001 - 7000	20	12.3
7001 - 9000	9	5.6
Above 9000	13	8.0
Total	162	100

Table 4 Education

Level of education	Number	Percent
Illiteracy	13	8.0
Primary school	94	58.0
Secondary school	28	17.3
College	18	11.1
University	9	5.6
Total	162	100

Table 5 Previous contraceptive method

Contraceptive methods	Numbers	Percents
Oral pill	90	55.6
Injection	36	22.2
Intrauterine device	23	14.2
Condom	3	1.8
Nil	10	6.2
Total	162	100

methods, 55.6%, while the condom was the least used, about 1.8%, as shown in Table 5.

As shown in Table 6, health personnel were the most important source of information on *Norplant* as they made 42% of the acceptors aware of the

Table 6 Sources of information on *Norplant*

Sources	Number	Percent
Health personnel	68	42.0
Cousins and friends	45	27.8
Mass media	31	19.1
Norplant acceptors	18	11.1
Total	162	100

system. On the other hand, 27.8% became informed through cousins or friends and 19.1% through mass media.

The complications and side effects of *Norplant* are shown in Table 7, 66.7% of the acceptors had no complications or

Table 7 Complications and side effects from norplant

Complications and side effects	Numbers	Percent
Nil	108	66.7
Irregular bleeding	36	22.2
Ecchymosis	9	5.5
Nausea/vomiting	4	2.5
Headache	3	1.9
Anorexia	1	0.6
Acne/chloasma	1	0.6
Total	162	100

side effects of *Norplant*. The most significant effect found was irregular bleeding(22.2%) while the least were acne and chloasma(0.6%).

It is obvious that 96.9% of the acceptors had followed-ups at seven days, then the rate declined. As a matter of fact, the rate at one year follow-up was only 54.32%(Table 8).

After being followed-up a period of one year, most acceptors had irregular bleeding (40.90%). The cyclic bleeding was found only 19.32% while the remainders were amenorrhea(Table 9).

Table 8 Follow-up rate

Time	Number	Rate (%)
First week	157	96.9
First month	114	70.4
Third month	98	60.5
Sixth month	82	50.6
Twelfth month	88	54.32

The continuation rate in the first year was high, as 99.38% continuing to use *Norplant*. There was only one case that removed it because her husband was vasectomized. No pregnancy was found during this one year period.

Table 9 Menstrual pattern

Menstrual pattern	Number	Percent
Irregular bleeding	36	40.90
Amenorrhea*	35	39.77
Cyclic bleeding	17	19.32

*> 3 months amenorrhea

Discussion

From this study, most acceptors were young, rather low socioeconomic level, and had 1 - 3 children. These acceptors are good candidates for *Norplant* since it could prolong the spacing, benefit the health of acceptors as well as remove a burden on their families and society. Moreover, it can last for five years.^(1,2)

In considering previous contraceptive methods, this study found that oral combined pill was the most used and condom the least. Health personnel were the most important source of information

on *Norplant* as also found in other study.⁽¹⁾ In fact, they played an effective role in *Norplant* information and family planning.

There were no serious complications or side effects from *Norplant*. Irregular bleeding was the most found side effect which the same as other studies.⁽¹⁻⁷⁾ The complications and side effects, however, could be treated and explained to the acceptors.

Follow-up rate was high (96.9%) at the first seven days and then the rate declined. At six months, the follow-up rate was 50.6%, and only 54.32% at the end of the first year. Some reasons for the decline in follow-up rate were, firstly, some of the acceptors lived up-country, secondly, some of them had no complications or side effects, and lastly, some changed their addresses.

As for the study on menstrual pattern during one year follow-up, irregular bleeding was the first indication, followed by amenorrhea and cyclic bleeding. The result of this study was different from others. They found that regular bleeding was the pattern of menstruation for most.^(2,8)

From the continuation rate, it was found that all acceptors, who were followed-up to the sixth month, continued to use it. As previously informed, at the end of the first year, there was just one case that removed it as her husband was vasectomized, thus, resulting in 99.38% continuation after one year from insertion. This was similar to the other study which found that the continuation rate within the first year was as high as 95.5%.⁽⁸⁾ In comparison to other meth-

ods, the continuation rate within the first year was 68.2% for IUD and 60% for injection.⁽⁸⁾ After one year follow-up, no pregnancy was found. This result was the same as the other studies.^(1,2,8)

This study shows that *Norplant* is highly accepted and is suitable for the low socioeconomic acceptors who want to prolong spacing between children in 3-5 year intervals. It is highly effective with low complications and side effects, has a higher continuation rate than other methods, and low pregnancy rate.

From other studies, *Norplant* does not have an effect on liver function, lipid metabolism and glucose metabolism.⁽⁹⁻¹¹⁾ Therefore, *Norplant* is one very good contraceptive method which can be used effectively in family planning programmes and should be distributed for use nationwide.

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