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Heavy Change of Acceptor Contraception Body in Depo Medroxy Progesterone Acetat (DMPA)

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Abstract

Depo Medroxyprogesterone Acetate (DMPA) injection contraception is the most widely used contraceptive method. The disadvantages of injectable contraception are increased body weight, amenorrhea, menorrhagia and spotting. The highest side effect of injectable contraception is weight gain. Analysis of differences in body weight before and after using Depo Medroxyprogesterone Acetat (DMPA) injectable contraception. A research design of paired sample tests with a sample size of 55 respondents. The average body weight before using Depo Medroxyprogesterone Acetate (DMPA) injectable contraception was 48.47 kg. After using Depo Medroxyprogesterone Acetat (DMPA) the average body weight was 50.54 kg, with the lowest body weight of 40 kg and the highest body weight of 69 kg. Data analysis using Paired t Test obtained p value = 0,000 < 0.05, meaning that there was a difference in body weight before and during using contraceptive injection of Depo Medroxy Progesterone Acetate (DMPA). Most Depo Medroxy Progesterone Acetate (DMPA) contraceptive sufferers experience weight gain.

Keywords: Injection Contraception, Weight Loss, Family Planning, Depo Medroxy Progesterone Acetate.

Introduction

Many reproductive health issues still need to be studied, not only about reproductive organs but there are several aspects, one of which is contraception. 3-month injection contraception is a popular contraceptive in Indonesia. Injection contraception is a method of contraception through hormone injections and as an effort to prevent pregnancy in women of childbearing age. There are two types of injectable contraception, namely injectable combinations containing injected estrogen and progesterone hormones every 1 month and injections of DMPA (Depo Medroxyproesterone Acetate) containing progestin hormones injected every 3 months¹.

Injectable contraception Depo Medroxy Progesterone Acetate (DMPA) is the most widely used contraceptive method. This is because the effective way of working is 30% of pregnancy per 100 women

per year. This type of contraception is considered to be easily obtained and used by couples of childbearing age. Injection type contraception is widely used because of its practical, safe, inexpensive, suitable for lactation (breastfeeding) because it does not suppress breast milk production and the rate of failure of injection contraceptive use is less than 1%¹.

According to ² Indonesian Health Profile, the coverage of new family planning participants and active family planning according to the type of contraceptive injection is 49.93% and active acceptors 47.78%. The type of contraception participants of the new Family Planning are the Fertile Age Couples who for the first time use one method or contraceptive after they end their pregnancy. In the ³ Central Java Province Health Profile, the most widely used family planning participants were injection, which was 57.4%. Injectable contraception is one type of contraception that is most widely used by fertile age couples and in the kesugihan area injection contraceptives are the highest choice.

Thus this method has the disadvantage of interrupting menstrual patterns including menorrhagia amenorrhea and spotting, late return of fertility after cessation of use, and weight gain. Weight gain is the

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most frequent side effect of injectable contraception. Several studies have suggested that weight gain due to DMPA contraceptive use is associated with increased body fat and an association with appetite regulation. One study found an increase in self-reported appetite by women who used DMPA contraception after 6 months. This can be attributed to the content of Depo Medroxyprogesterone Acetat (DMPA) which is the hormone progesterone, which can stimulate the appetite control center in the hypothalamus, causing an increase in appetite. The results of another study conducted by the University of Texas Medical Branch (UTMB), women who used DMPA contraception on average experienced an increase in body weight as much as 11 pounds or 5.5 kilograms, and experienced an increase in body fat by 3.4% within three years usage⁴.

DMPA injector acceptors in the Kesugihan area are most prevalent in Slarang Village with family planning acceptors of 224 acceptors. Many DMPA injection contraception acceptors said that body weight increased after using DMPA injectable contraceptives. Of the 10 acceptors said they had gained weight after using DMPA injection contraception. Based on this background, the researcher was interested in researching "Analysis of Differences in Body Weight Before and During Using Depo Medroxy Progesterone Acetate Injection Contraception (DMPA)".

Method

Comparative analysis research design, two dependent meanings, is to test the mean difference between 2 data groups. The population in this study were a number of mothers who used Depo Medroxyprogesterone Acetat (DMPA) injectable contraception. Based on data taken by the population of Depo Medroxyprogesterone Acetat (DMPA) injection contraception, 55 respondents. In this study samples were taken using total sampling techniques.

Results And Discussion

Based on the results of the study of 55 respondents, the highest age characteristics of Depo Medroxy Progesterone Acetat (DMPA) contraceptive acceptors were at the age of 31-40 years, and the highest duration of use was less than 1 year and the lowest was 3 years.

A. Changes in Body Weight Before and After Using Depo Medroxyprogesterone Acetate Injectable Contraception (DMPA)

The results of the study of body weight in Depo Medroxyprogesterone Acetat (DMPA) injectable contraceptive which is presented in the Fig. 1.

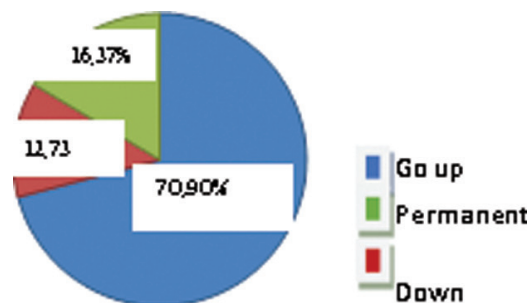


Fig. 1: Weight Loss of Injectable Contraceptive Acceptors Depo Medroxyprogesterone Acetate (DMPA)

Based on Fig. 1, that of the number of respondents 55 acceptors, 70.90% experienced an increase in body weight. The average body weight at the initial use of DMPA was 48.47 kg, while the average weight after using DMPA was 50.54 kg.

Weight gain has always been a major concern among DMPA acceptors. There is an average weight gain of 0.1 kg at visits 1-3 (first 3 months) and an average weight gain of 1.036 kg at the end of the year⁵. The amount of weight gain is influenced by the percentage increase in body weight after 6 months and the length of use of DMPA injection contraception. Acceptors who experience a 5% increase in body weight in the first 6 months will experience an average increase in body weight of 0.63 kg, 1.48 kg and 2.49 kg after 12, 24, 36 months. While an increase of more than 5% will experience an average increase in body weight of 8.04 kg, 10.86 kg and 11.08 kg.⁴ The results of this study illustrate the occurrence of changes in weight, either increasing or decreasing due to consumption of food that is converted into fat and stored under the skin. Nutritional intake also causes weight gain, possibly due to excessive eating patterns that make it easier to gain weight. Or maybe the intake of calories in the body is excessive and does not match the needs that result in weight gain. In addition to hormones and nutritional intake that affect weight gain can also be affected by physical activity. Decreased physical activity can occur due to increasing age which results in less enthusiasm for physical activity. This may occur because of the lack of time and opportunity available. Or maybe an energy intake that exceeds the body's needs which are usually experienced by people who lack exercise or lack of

physical activity so that energy entering the body is not burned or used which is then stored in the form of fat which causes weight gain.⁴

B. Differences in body weight before and after using Depo Medroxy Progesterone acetate (DMPA) injections (Table 1).

Table I: differences in average body weight before and after use of depo medroxyprogesterone acetate (DMPA) injectable contraceptives

| | Initial weight | Final weight |
|------|----------------|--------------|
| N | 55 | 55 |
| Mean | 48.47 | 50.54 |
| SD | 9.138 | 9.101 |

Paired-sample T test: df = 54; t = 15.5; p = 0.000 (0.05)

Based on Table 1 it can be seen that there are differences in maternal body weight before and after the use of DMPA injectable contraception as evidenced by the initial change in DMPA weight is 48.47 kg, while the average after DMPA use is 50.54 kg.

Research results from ⁶ that there were differences in weight gain in DMPA and Cycloven injection contraceptive acceptors there was an increase with the results of p value <0.001. This result was also supported by ⁷ study that there was a significant increase in body weight after three months (p <0.01) and six months higher in DMPA users than in controls (p = 0.000 <0.05).

Based on research that DMPA injection contraceptive acceptors have more weight than users of combined oral contraceptives and not users of hormonal contraception, DMPA users increase their body weight (+5.1 kg), body fat (+4.1 kg), percent body fat (3.4%), and the ratio of central-peripheral fat (+0.1)^{4,8}. A systematic review found that weight gain with DMPA was not associated with initial weight or BMI in adults but that obese clients or overweight adolescents ⁴. The acceptors experienced weight gain after using DMPA injectable contraception as much as 57.5%. This is also in accordance with the results of the study of ⁴ that there is a glucocorticoid-like activity signal, resulting in an increase in appetite after 6 months in the study. In accordance with the results of the study also that there are significant differences in body weight before and after with the results of Paired-sample T test: df = 54; t = 15.5; p = 0.000 (<0.05).

The results of the study⁹ found evidence of weight gain when using progestin contraception alone.

Some significant differences when oral pill methods are compared with no hormonal contraception. This includes studies on oral contraceptives for oral pills, DMPA, levonorgestrel, and implants. Overall, the average weight gain was low for 6 to 12 months, which was less than 2 kg (4.4 lb) in most studies. Weight gain was recorded at two and three years, but the comparison group did not differ much in weight changes. People can gain weight over time regardless of contraceptive use. Appropriate and accurate counseling about typical weight gain can help reduce contraceptive termination because of weight perception.

Side effects of DMPA injection contraception, one of which is weight gain in 12.5% ¹⁰long lasting and reversible agent of fertility control. The objective is to determine the profile of the acceptors, side effects and indication for discontinuation of progestogen-only injectable contraceptives at UCTH, Calabar. This was a retrospective study of the clients who used progestogen-only injectable contraceptives at the family planning unit between 1st January 2008 and 31st December 2014. A total of 1392 clients used the injectable progestogen-only contraceptive out of 5986 total contraceptive users giving the prevalence rate of 23.3% over the period. Of these, 60.4% of the clients accepted the depot medroxy-progesterone acetate, while 39.6% accepted the norethisterone enanthate. It was mostly utilized by multiparous women, clients with tertiary education and those in their third decade of life. Secondary amenorrhea was the commonest side effect in 47.7% of the clients. Over the study period, 243 (19.8%). Women who used DMPA experienced an average weight gain of 6.2 kg compared with an average increase of 2.3 kg in the combined oral contraceptives (COCs) group, 2.8 kg with values (p = 0.02) ¹¹. At baseline, the median age was 29 and 30.5 years, and the average BMI was 24.8 and 24.5 kg / m² in the DMPA group. At 12 months, an increase was observed at the waist and hip circumference in DMPA users and 8/20 of them had a weight gain of 5% (an average of 4.6 kg). And Significant weight gain is caused by hormonal contraception but also because of the age of the acceptor ^{12,13}.

Conclusions

Depo Medroxy Progesterone Acetate (DMPA) injectable contraceptive acceptors with duration of use between 3 months to 36 months experience weight gain with Paired-sample T test: df = 54; t = 15.5; p = 0.000 (<0.05). Pre-use counseling is very important to

overcome the effects of weight changes that occur in some acceptors of Family Planning so that they become acceptor.

Conflict of Interest: NIL

Source of Funding: Self Source

Ethical Clearance: Done by Research Committee

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