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Effect of Hormonal Contraception in Women of Childbearing Age with Breast Cancer

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ABSTRACT

The incidence of cancer in women of childbearing age globally is increasing. Breast cancer is the most common cancer in women. These occurrences often tend to involve hormone-related pathways. Exogenous hormones have a higher risk for breast cancer, one of which is the use of contraception. The majority of women of childbearing age become users of family planning acceptors, so the purpose of this study was to determine the effect of hormonal contraception on women of childbearing age with cancer incidence. This study used a retrospective method. The case group was a woman of childbearing age who became an acceptor of hormonal family planning with a sample of 30 respondents. Data analysis using chi-square obtained p value = 0.276, meaning that there is no significant relationship between hormonal contraception in women of childbearing age and the incidence of cancer.

Keywords: Contraception, Hormonal, Women

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BACKGROUND

Cancer is the number 5 cause of death in Indonesia and increases significantly every year. The highest incidence of cancer in Indonesia is breast cancer. (User-Centered Design Research Approach Hormonal Contraception, 2021) The estimated incidence of breast cancer in Indonesia is 26 per 100,000 women and 16 per 100,000 women. (B, 2020) Breast cancer and cervical cancer are two of the main problems of women's health globally, especially in developing countries such as Indonesia, and one of the causes of the development of cancer is the low coverage of early detection. (Borzutzky et al., 2021)

There are currently no definitive data on the main causes of breast cancer. The occurrence of breast cancer is thought to be due to a complicated interaction of many factors such as genetic, environmental and hormonal factors, namely excessive levels of the hormone estrogen in the body. (Cagnacci et al., 2022) Breast tissue growth is susceptible to estrogen, so women who are exposed to estrogen for a long time will have a significant risk of developing breast cancer. (Debaudringhien et al., 2021)

According to Suleman et al., the occurrence of estrogen exposure can be caused by several conditions, namely never giving birth or giving birth for the first time at the age of 35 years, not breastfeeding, long-term use of contraception. In addition to,

The occurrence of exposure to estrogen can be caused by hormonal contraceptives that contain a combination of hormones, namely estrogen and progesterone. (Fox et al., 2020) Most users of hormonal contraception are injections and pills. The most widely used oral contraceptives are a combination of estrogen and progestin. (Kim et al., 2021)

As a factor that increases breast risk, oral contraceptives are a concern and controversy in the world of health today. (Le et al., 2021) The number of oral contraceptive users and breast cancer sufferers continues to increase every year throughout the world, so research on the risk of breast cancer in the use of hormonal contraceptives is very important to do. (Peisker et al., 2018) Due to the problems above, researchers are interested in examining the relationship between the use of hormonal contraception and the incidence of breast cancer. (Ra et al., 2022)

METHOD

This research uses case-control analytic observational method. The study was carried out from January to February 2020. The population in this study were all family planning acceptors who were examined, the control population in this study was 30 people and the case group was 30 people. The instruments used in this study were questionnaires and checklists to determine

the use of hormonal contraception and the incidence of breast cancer. The statistical test used is Chi- Square after all the required data, the collected data is processed using SPSS.

RESULTS AND DISCUSSION

Results

Table 1. Data Analysis

Characteristics	*p-Value*
Age	0.181
parity	0.713
Family History	0.0001
Hormonal birth control acceptor	0.276

Source: Secondary Data

Based on the analysis of the characteristics of the data in table 1, it is found that parity has the highest value, namely p-value 0.713 while hormonal pregnancy control acceptors with p value = 0.276 so it can be concluded that there is no relationship between the use of hormonal contraception and the incidence of breast cancer.

Many things are thought to be risk factors for breast cancer, including old age, obesity, high-fat diet, family history, first pregnancy in old age, and hormones (Reimers et al., 2015) . Women aged >50 years have a 5.8 times greater risk of breast cancer than women aged <50 years. Fahad al-Amri's research in Riyadh showed that the average age of people with breast cancer was 48.5 years with an SD of 7.1 years. According to the theory, the older a woman is, the greater the risk of developing breasts (Yuan et al. 2018). However, the results of this study are not in line with this study which showed that

there is no relationship between age and breast cancer.

In this study, the age of menarche occurred at the age of 13-14 years, and the number of respondents who experienced menstruation at that age was more in the control group than in the case group. So it can be concluded that there is no relationship between the age of menarche and the incidence of breast cancer; This is inversely proportional to the results of a previous study conducted by Tezuka et al., 2020 , which showed that women aged <12 years of menarche were more likely to develop breast cancer than those who did not.

Based on the results of the study, there was no significant relationship between the use of hormonal contraception and the incidence of breast cancer. (Ycaza et al., 2020) Although theoretically about the imbalance of the hormones estrogen and progesterone, it is used for hormonal contraceptives and materials. Two theories discuss how estrogen and progesterone cause breast cancer; the first is the risk of cell mutation during division increases because cell proliferation by increasing estrogen and progesterone also increases. (Thaxton et al., 2021)

The most critical factor in the incidence of breast cancer in this study is a family history of first-degree relatives (Wk & Dua, 2012). A person will have a greater risk of developing breast cancer if there is a family member suffering from breast cancer and ovarian cancer (Warren et al. , 2021)

CONCLUSION

Researchers can conclude that there is no relationship between the use of hormonal contraception with the incidence of breast cancer. The gap between the results of this study and previous research or existing theories may have several possibilities. This can happen if women who use hormonal contraception maintain a healthy lifestyle by maintaining their diet and activities by diligently exercising and minimizing the consumption of fatty foods, which in this study was supported by the nutritional status of women with breast cancer, especially. Have normal nutritional status. sss

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