

The Risk Factors of Fibroadenoma: Cross Sectional Study in Solok Selatan Hospital, Indonesia

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ABSTRACT

Fibroadenoma is one of the most common benign tumors on young women. Some studies showed that healthy diet decrease risk factor for fibroadenoma on young women. This research aims to study the relationship between age and diet with fibroadenoma. This study is a quantitative study with a cross sectional approach. it was conducted on a population of young women at the Solok Selatan Hospital. the sample was 64 people. The study was conducted in July and August 2019. We used medical record and questionnaire to study fibroadenoma, age and diet. The data were using chi square analysis. 39,1% of sample were fibroadenoma. 45,3% of sample were young women and 48,4% of sample had poor diet. Bivariate test got p value 0,000 for all of variable. Conclusion The age and diet had positivity correlation with fibroadenoma. Nurses were expected to give information about healthy diet for decreasing risk factor of fibroadenoma.

Keywords: *Fibroadenoma, Age, Diet*

1. INTRODUCTION

Non-communicable diseases (NCDs) have become a big problem in Indonesian society. Non-communicable diseases tend to continue to increase globally and nationally and have entered the top ten diseases that cause death^[1]. Nowadays, changes in people's lifestyles such as diet, use of contraceptives and changes in the environment that cause mortality morbidity has shifted from reducing infectious diseases and increasing non-communicable diseases. One of the non-communicable diseases is fibroadenoma^[2].

Fibroadenoma is the most of problem on young women. It is one of breast problems in breast clinics. Based on previous studies, 30% of women will suffer from fibroadenoma. Fibroadenoma is benign tumor with high prevalence in Indonesia. Clinicians think whether to remove or keep it. Both of decision have a risk for patients. We must know risk factors of fibroadenoma so it did not occur^[3].

The etiology of fibroadenoma is caused many predispositions. The risk factors of fibroadenoma are age, diet and family history^[4]. Some studies got that estrogen influences the incidence of fibroadenoma. Young women have high risk factor for fibroadenoma. It is caused by hormonal factor like estrogen. High fat diet has contribution to increase

fibroadenoma^[5]. High fat can increase cholesterol levels. This triggers hormonal imbalance like estrogen^[6].

Currently, fibroadenoma is higher at the age of teenagers than old women^[7]. It is triggered by many changes in lifestyle and behavior in adolescents such as consumption of fast food and less consumption of vegetables and fruit. The fast food contains high salt, fat and calories, including cholesterol which reaches 70%. It also contains only a small amount of fiber which is really needed by the body. In addition, it is low nutritional content, contain preservatives and addictive substances that make us addicted. This research aims to study correlation age and diet with incidence of fibroadenoma.

2. MATERIAL AND METHODS

The research was descriptive with cross sectional design. The population were women patients in Solok Selatan Hospital, Indonesia. They were 64 sample. We used questionnaire to collect data. Fibroadenoma incidence were gotten from medical record. Before collecting data, we have asked informed consent. The study has done in July and August 2019. Data were analyzed by SPSS version 21. We used univariate and bivariate analysis. We used descriptive statistics for all of variable like

fibroadenoma incidence, age, and diet. Chi square was used for bivariate analysis.

3. RESULTS

3.1. Fibroadenoma

The frequency distribution of Fibroadenoma in the Solok Selatan Hospital can be shown in Table 1.

Table 1. The Frequency Distribution of Fibroadenoma

Fibroadenoma	f	%
Yes	25	39,1
No	39	60,9
Total	64	100

3.2. Age

The frequency distribution of age in the Solok Selatan Hospital can be shown in Table 2

Table 2. The Frequency Distribution of Age

Age	f	%
Risk	29	45,3
No Risk	35	54,7
Total	64	100

3.3. Diet

The frequency distribution of Diet in the Solok Selatan Hospital can be shown in Table 3.

Table 3. The Frequency Distribution of Diet

Diet	f	%
Risk	31	48,4
No Risk	33	51,6
Total	64	100

3.4. The Correlation Age and Fibroadenoma

The correlation age and fibroadenoma in the Solok Selatan Hospital can be shown in Table 4.

Table 4. The Correlation Age and Fibroadenoma

Age	Fibroadenoma				Total		p-value
	Yes		No		f	%	
	f	%	f	%			
Risk	20	69	9	31,0	29	100	0,000
No Risk	5	14,3	30	85,7	35	100	
Total	25	39,1	39	60,9	64	64	

3.5. The Correlation Diet and Fibroadenoma

The correlation Diet and Fibroadenoma in the Solok Selatan Hospital can be shown in Table 5

Table 5. The correlation Diet and Fibroadenoma

Diet	Fibroadenoma				Total		p-value
	Yes		No		f	%	
	f	%	f	%			
Risk	22	71,0	9	29,0	31	100	0,000
No Risk	3	9,1	30	90,9	33	100	
Total	25	39,1	39	60,9	64	100	

4. DISCUSSION

The results showed that less than 25 respondents (39.1%) had fibroadenoma and less than half of the 29 respondents (45.3%) had a risk of age. The study from Isa (2019) with the title Factors influencing the incidence of fibroadenoma in women at RS. Prof. Yohannes Kupang said that 47,8% respondents had fibroadenoma and 86,6% of women were at high-risk age. They were 16-45 years old. The results showed that respondents who experienced the incidence of fibroadenoma were more at-risk age (69%) than those without risk (14.3%). Statistical test got p value = 0.000. It was relationship between age and fibroadenoma.

In addition, the age at risk but not at risk for the incidence of fibroadenoma was also found (31.0%). It was caused the women did not have a history of heredity, healthy eating patterns and do regular exercise. This study got that old woman had risk of fibroadenoma (14.3%).

Age is an important factor that determines the incidence of fibroadenoma. Fibroadenoma usually occurs in young women < 30 years (late adulthood 36-46), > 30 years (early teens 12-16). Based on data from a study at the Department of Pathology at Komofu Anyoke Teaching Hospital in Ghana, it got that the age of patients was 23 years with an age range of 14-49 years^[2]. This benign tumor is often found in reproductive age, caused by several possibilities, namely due to excessive sensitivity of local tissues to estrogen^[8]. This disease occurs asymptotically in 25% of women and often occurs in early reproductive age and peaks between the ages of 15 to 35 years^[6]. It is said that the age of patients with fibroadenoma in Indonesia is younger than in developed countries.

The results approved that 31 respondents (48.4%) had high risk diet. Fitriyaningsih (2018) regarding the relationship between diet and breast cancer risk (Case Study at the Oncology Hospital and Clinic in Banda Aceh) found that the results of

consumption patterns of fresh animal sources in the bad category were found in the case group (15.6%). The proportion of respondents with consumption patterns based on processing methods in the bad category were found in the case group (28.9%) compared to the control group (20%). The proportion of respondents with consumption patterns of sources of oil and fat in the bad category were in the control group^[3].

The researcher's assumption in the study of eating patterns that are at risk for the occurrence of fibroadenoma, we found the study 21.9% often consume canned foods such as sardines, 28.1% often consume canned drinks or drinks containing sweeteners, 21.9% often consumed fast food, 35.9% often consumed preserved food and 25% always consumed baked goods.

Diet is the daily behavior pattern of a group of people in society. A healthy lifestyle needs behavior consistency. It will give best result if healthy lifestyle is done continuously^[9]. Keep a healthy diet, do exercise, reduce stress and environment Healthy. It gives good and positive results^[10]. Good Diet is important for decreasing the risk of developing fibroadenoma. Stopping consumption of red meat and a high-fat diet can reduce incidence of fibroadenoma^[2].

It was found that respondents who experienced fibroadenoma occurrences on risk diets (71.0%) compared non-risk diets (9,1%). Statistical test was p value = 0.000. It was a significant result between diet and fibroadenoma^{[6][11]}

5. CONCLUSION

Age and diet had a positive relationship with fibroadenoma. Nurses can educate young women to maintain their food intake properly, such as avoiding high fat foods, foods containing preservatives and increasing consumption of fruits, vegetables, and organic foods.

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