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Risk of Precancerous Cervical Lesions: A Descriptive Study at Sapuran Health Center, Wonosobo City

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Abstract

Background: Cervical cancer is a disease that attacks women caused by Human Paplilloma Virus. Early sign of this cancer is discovery precancerous cervical lesions. Early prevention of knowing the presence of these lesionss is by early detection of the Visual Inspection Acetic Acid (VIA) method

Methods: This study was an observational research using case control design. Samples were taken is 126 people, 63 people as total cases and 63 peoples as control. using simple random sampling. Univariate data analyzed and presented in frequency distribution.

Results: Characteristics of respondents in this study include the majority of respondents responden were women above 35 years old (60,3%) and low education or lower than 9 years (78,6%). The results showed that 49,2%% had age of first sexual intercourse <20 years, 10,3% had number of sexual partner >1, and 58,3% respondent had ≥3 number of parity.

Conclusion: Woman with number of parity ≥3 had precancerous cervical lesionss.

Keywords: Precancerous cervical lesionss, VIA, Cervical Cancer

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Background

Cervical cancer is a disease that attacks women caused by Human Paplilloma Virus. Cervical cancer is usually developed after prolonged phase of precancerous lesions. Therefore, early identification and treatment at precancerous stage may benefit the woman and decrease the burden of mortality resulting from cervical cancer.[1]

Visual Inspection with Acetic Acid (VIA) is one ofthe screening modality ofcervical pre- cancerous lesions. This examination can be done anytime and anywhere, so that in developing countries like Indonesia VIA examination is an initial screening alternative to detect whether a woman is at risk for cervical cancer or not caused by HPV virus. [2]

This examination can be done anytime and anywhere. Sapuran Health Center had higher VIA positivity result. At 2018 had result 7,9% and 4,2% at 2019 until June. This result more than target from Ministry of Health by 3%, it means Sapuran had higher risk factor of cervical lesions.

In past studies from across the world, personal hygiene, menstrual history and sexual history are shown to be associated with cervical cancer by some epidemiological studies done in different corners of world and Indonesia. [7]

Identifying factors associated with the cervical precancerous lesions is important. Based the aim, the researcher wants to examine the factors associated with precancerous cervical lesionss among woman who participate early detection Visual Inspection Acetic Acid (VIA) in Sapuran Health Center.

Methods

It was an analytic observation research, with case-control design aims to determining what factors associated with precancerous cervical lesions in Sapuran Health Center. The independent variables in this study including the age of first sexual intercourse, number of sexual partners, and number of parity. The dependent variable in this study is theprecancerous cervical lesions. The population in this study were all women who had done VIA examination in 2018 to June 2019 at Sapuran Health Center. Samples were taken is 126 people, 63 people as total cases and 63 peoples as control. using simple random sampling. This research uses the univariate analysis with a confidence level of 95%. Data are presented in frequency distributions that describe the demographic characteristics of respondent, age of first sexual intercourse, number of sexual partner and number of parity. Data was collected by interview with a questionnaire.

Results and Discussion

A. Characteristics of Respondent

Table 1 Distribution Characteristic of Respondents

Characteristic of Respondents	Frequency	
	f	%
Age		
Age ≥ 35	76	60,3
Age<35	50	39,7
Education		
≤Low(≤9 tahun)	99	78,6
>High (>9 tahun)	27	21,4

Based on Table 1, majority of responden were women above 35 years old (60,3%). The average age was 35,21 years with the youngest age of 20 years and the oldest age of 55 years. The majority of respondents had low education or had lower than 9 years (78,6%).

B. Age of Firts Sexual Intercourse

Table 2 Frequency Distribution of Age of first sexual intercourse

Age of first sexual intercourse	Frequency	
	f	%
Age <20	62	49,2
Age ≥20	64	50,8

Table 2 shows, 49,2%% of them had age of first sexual intercourse <20 years, with the youngest age of 12 years and the oldest age of 30 years.

C. Number of Sexual Partner

Table 3 Frequency Distribution of Number of Parity

Number of sexual partner	Frequency	
	f	%
2	13	10,3
≤1	113	89,7

Table 3 shows, 89,7% of respondents have number of sexual partner ≤1, with the least ≤1 and the most as 2.

D. Number of Parity

Table 4 Frequency Distribution

Number of parity	Frequency	
	f	%
Labor ≥3	66	52,4
Labor <3	60	47,6

Table 4 shows, 52,4% had number of parity ≥3, with the least ≤1 and the most as 6. Woman under 20 years old had immature epithel. Cervical cell always metaplasia (active). If this cell had contact or stimulation from outside, cervix will growth to abnormality.[3,6] A woman who married at the age of <20 years and had sexual actively, it will contact and stimulation of male genitals and prostaglandins contained in sperm will be vulnerable to trauma or retraction muscles by the genitals and prostaglandins. The existence of trauma or injury caused by foreign objects can cause changes in the cervical mucosa. Mucosal changes in the cervix of young women can lead to cervical precancer which results in an increased risk of cervical cancer.

The results of this study are in accordance with previous research in Medan that showed women who have first sexual intercourse under 20 years old will increase the risk of pre-cancerous cervical lesionss.[4,8] In this research, 49,2% respondents had age first sexual intercourse under 20 years old because woman in Sapuran will be married when have puberty (first menarche). So, many woman at Sapuran, had younger married.

Woman who have more than 1 sexual partner will increase the risks of cervical cancer caused by HPV virus (Human Papiloma Virus). In principle, every man has a different specific protein in his sperm. Such proteins can cause damage to cervical epithelial cells. Cervical epithelial cells will tolerate and recognize the protein. Multiple partners will allow contracting venereal disease, one of which is the Human Papilloma Virus (HPV). This virus will change the cells on the surface of the mucosa to divide into more and uncontrolled to abnormal.

The results of this study are in accordance with previous research in East Java that showed women who have sexual partner more than 1 will increase the risk of pre-cancerous cervical lesionss.

In this research, 10,3% respondents had number of sexual partner more than 1 because sexual history among woman before married and than had sexual activity with different man.

In Sapuran had higher number of early marriages and increases divorce rates due to the rush to settle down without considering economic and psychological conditions. This high divorce rate will cause a second, third and so on marriage. HPV Virus transmitted with sexual contact, so this also applies to husband. If husband had multipartner sexual and infected HPV, he will transmit to his wife.

Woman who had labor more than 3 and had distance so close will increase precancerous cervical lesionss because parity make cervix trauma and and after pregnancies which may create an entry point for the HPV virus. [2] Multiparity cause a decrease of immunity. The group of women who had a parity number of more than 3 had a risk of suffering from cervical cancer 1.9 times greater than the group of women who gave birth between 1-5 times.The number of third or more parity had an increased risk.

Women with high parity will be have cervical trauma in birth canal and make cells in the cervix abnormal.The results of this study are in accordance research in Tanzania that showed women who have number of parity ≥3 will increase the risk of pre-cancerous cervical lesionss In this research, 52,4% respondents had parity ≥3 because woman in Sapuran had many children still common and they didn't know impact when they have many child. Many respondents said, because non-effective contraception. Some respondents think that many children have a lot luck. So this reason women in Sapuran had child more than 3.

Conclusion

In this study, woman who with age of first intercourse <20 years old, number of sexual partner more than 1 and number of parity ≥3 had precancerous cervical lesions.

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