

IMPACT OF HUMAN PAPILLOMA VIRUS IN INDIAN WOMEN
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ABSTRACT

Cancer is a broad term. It describes the disease that results when cellular changes cause the uncontrolled growth and division of cells. Some types of cancer cause rapid cell growth, while other cause cells to grow and divide at a slower rate. A cell receives instructions to die in order that the body can replace it with a more modern cell that functions better. Cancerous cells lack the components that instruct them to prevent dividing and to die. The cervix is located in the lower part of the uterus also called uterine cervix, it connects the body of the uterus by the cervix part called endocervix to the birth canal by the part named exocervix. Cells covering the cervix are referred to as squamous cells and the glandular cells. Cervical cancer is the second most common type of cancer in women worldwide, after breast cancer. Human papillomavirus, or HPV, is that the commonest sexually transmitted infection (STI) within the us . About 80% of women will get at least one type of HPV at some point in their lifetime. In this study the PAP smear was performed for the patients at Harsha Mithra super specialities cancer hospital in trichy. PAP smear was performed from November 2018 to January 2019 and 12 patient undercurrent test. The PAP smear test was done for few people in the month of December 2018 and January 2019, Approximately 38 members came for the test. In 2016, 132 people have come to the hospital for PAP smear test 68 people are affected by this PAP smear and in 2017 there are 169 People have come to the hospital for PAP smear test 129 People are affected by this PAP smear test and in 2018, 112 People have come to the hospital for PAP smear test 163 people are affected by this PAP smear test.

INTRODUCTION

Cancer is a broad term. It describes the disease that results when cellular changes cause the uncontrolled growth and division of cells. Some kinds of cancer cause rapid cell growth, while others cause cells to grow and divide at a slower rate. Certain kinds of cancer end in visible growths called tumors, while others, like leukemia, do not. Most of the body's cells have specific functions and glued lifespan. While it's going to sound sort of a bad thing, necrobiosis is a component of a natural and beneficial phenomenon called "apoptosis".

A cell receives instructions to die so as that the body can replace it with a more modern cell that functions better. Cancerous cells lack the components that instruct them to stop dividing and to die. (Rachel Nall et al.,2018).

As a result, they build up within the body, using oxygen and nutrients that might usually nourish other cells. Cancerous cells can form tumors, impair the system and cause other changes that prevent the body from functioning regularly.

Cancerous cells may appear in one area, then spread via the lymph nodes. These are clusters of immune cells located throughout the body. There are many causes of cancer, and some are preventable. For example, over 480,000 people die within the U.S. each year from smoking cigarettes, consistent with data reported in 2014.

A person's ordering tells their cells when to divide and expire. Changes within the genes can cause faulty instructions, and cancer may result .

Genes also influence the cells' production of proteins, and proteins carry many of the instructions for cellular growth and division.

Some genes change proteins that might usually repair damaged cells. This can lead to cancer. If a parent has these genes, they'll expire the altered instructions to their offspring.

Each year, more than 40,000 people in the country receive a diagnosis for one of the following types of cancer:

- Bladder
- Colon and rectal
- Endometrial
- kidney
- Leukaemia
- Liver
- Melanoma
- Non-Hodgkin's lymphoma
- Pancreatic
- Thyroid

Other forms are less common. According to the National Cancer Institute, there are over 100 sorts of cancer.

Metastatic cancer is the term that describes that a cancer spread from the place where it first started to another place in the body. This process of spreading is called as Metastasis. It has the same name and same type of cancer cells.

The cervix is located in the lower part of the uterus also called uterine cervix, it connects the body of the uterus by the cervix part called endocervix to the birth canal by the part named exocervix. Cells covering the cervix are mentioned as squamous cells and therefore the glandular cells. American Cancer Society,etal., 2010).

Cervical cancer is that the second commonest sort of cancer in women worldwide, after carcinoma . A preponderance of evidence supports a causal link between human papillomavirus infection and cervical neoplasia. The presence of high-risk human papillomavirus genital subtypes increases the danger of malignant transformation. Widespread use of the cervical smear has dramatically reduced the incidence of cervical cancer in developed countries. (Timothy Canavan et al., 2000).

Cervical cancer is that the second commonest cancer in women worldwide, and it's the principal cancer of girls in most developing countries, where 80 percent of cases occur. (Ferlay J, Bray J et.al., 2000).

Cervical Cancer – Disease Burden

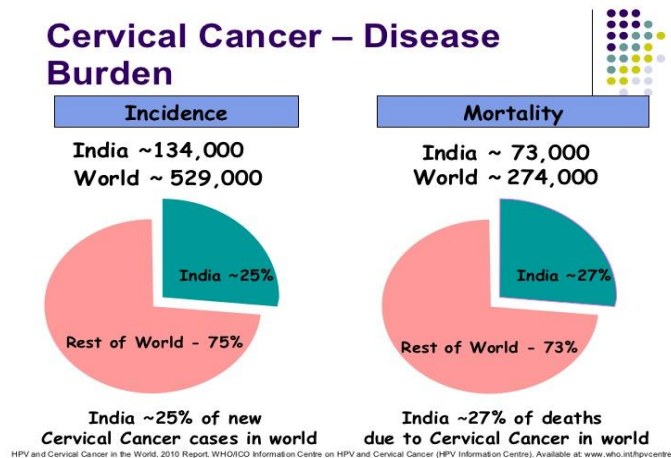


Figure 1.1

Human papilloma virus:

Human papillomavirus, or HPV, is that the commonest sexually transmitted infection (STI) within the us . About 80% of girls will get a minimum of one sort of HPV at some point in their lifetime. It is usually spread through vaginal, oral, or sodomy . Many women do not know they have HPV, because it usually has no symptoms and usually goes away on its own. Some sorts of HPV can cause illnesses like genital warts or cervical cancer. There is a vaccine to help you prevent HPV. (Myers, E.R, et al.,2000).

HPV is that the name for a gaggle of viruses that has quite 100 types. More than 40 sorts of HPV are often skilled sexual contact. The types that infect the genital area are called genital HPV.

Genital HPV is that the commonest STI within the us for both women and men. About 79 million Americans have HPV. It is so common that 80% of women will get at least one type of HPV at some point in their lifetime (K., Bastian, et al.,2000).

HPV is spread through:

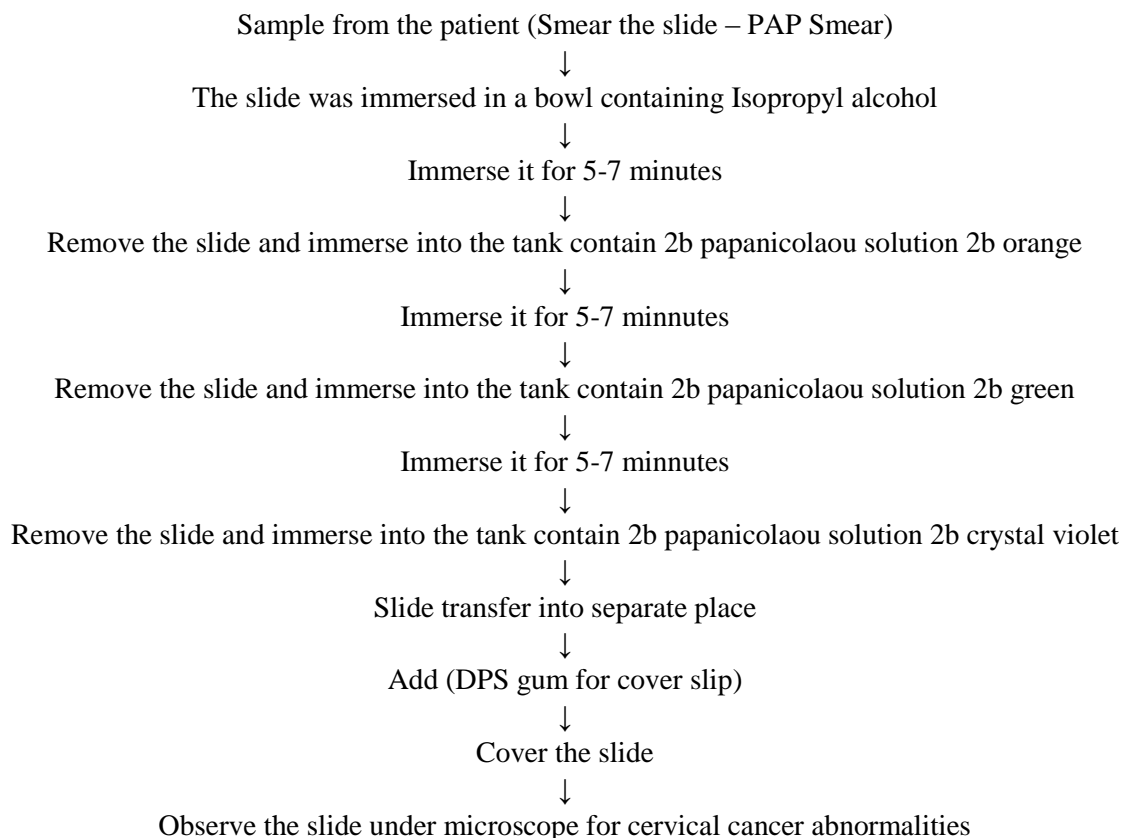
- Vaginal, oral, or anal sex. HPV are often spread albeit there are not any symptoms. One can get HPV from someone who has no signs or symptoms.
- Genital touching. A man doesn't got to ejaculate (come) for HPV to spread. HPV also can be passed between women who roll in the hay with women.
- Childbirth from a woman to her baby

MATERIALS AND METHOD

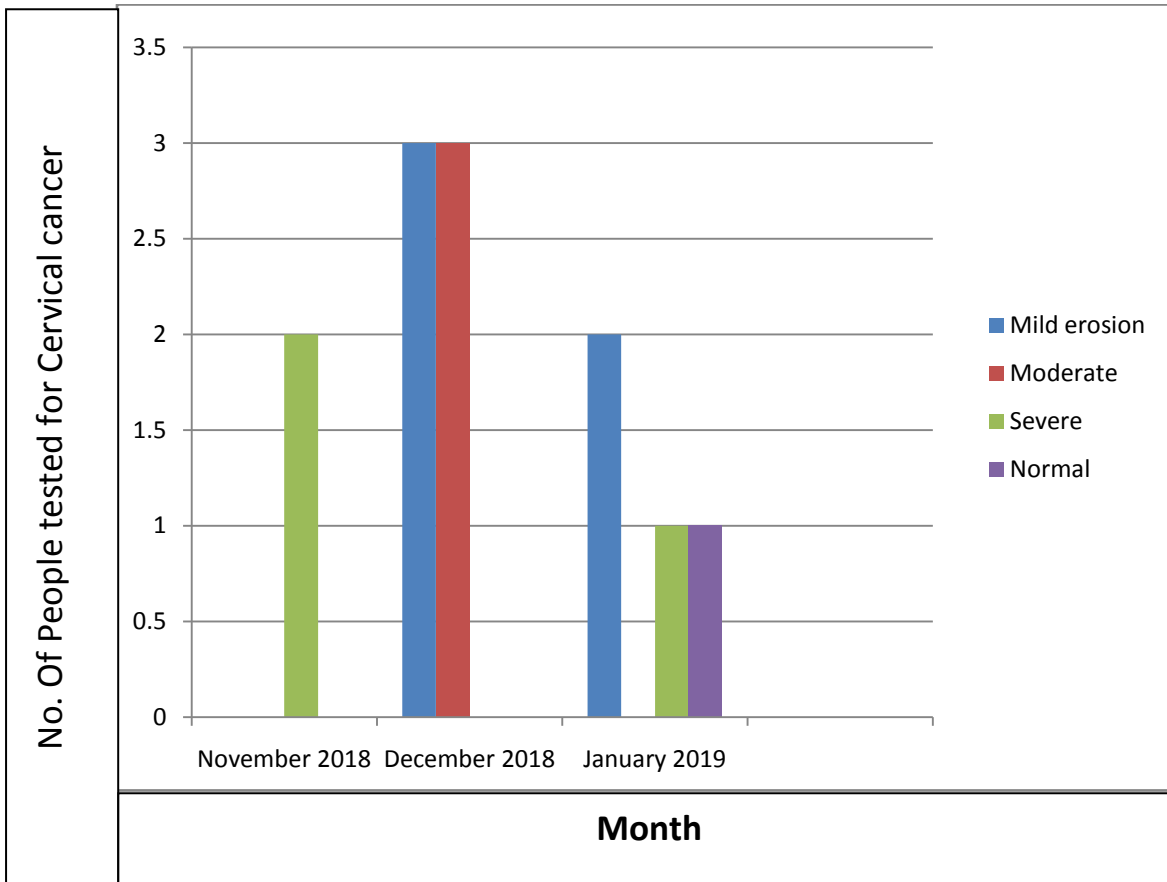
SAMPLE COLLECTION

- The actual Pap smear is quite quick, although many women find it uncomfortable or embarrassing.
- Usually the woman is asked to lie on her back on the edge of the examination table, with her legs spread apart in the foot holds. This allows the medical practitioner to access the opening to the vagina, which is needed to conduct the test.
- A speculum is then inserted into the vagina, which opens up the walls of the vagina and provides access to the cervix, where the cell sample needs to be taken.
- The medical practitioner commonly uses a spatula to scrape a sample of cells from the outer opening of the cervix wall. Then an endocervical brush is used along the central opening of the cervix to collect cells from this area as well.
- When the cell sample has been gathered, the speculum can then be removed and the procedure is finished. The same is then sent away to a laboratory to be tested for abnormalities and a follow up appointment is often scheduled to discuss the results.

PAP SMEAR PREPARATION



Graph 1.1



PAP Smear test from November 2018 to January 2019

- PAP Smear was performed from November 2018 to January 2019 and Twelve patient undercurent this test.
- I have done the PAP smear for two people in the month of November 2018, In the month of December 2018 six people and January 2019 four people.
- PAP smear was performed by me for the above said patients at Harsha Mithra super specialities cancer hospital in Trichy.

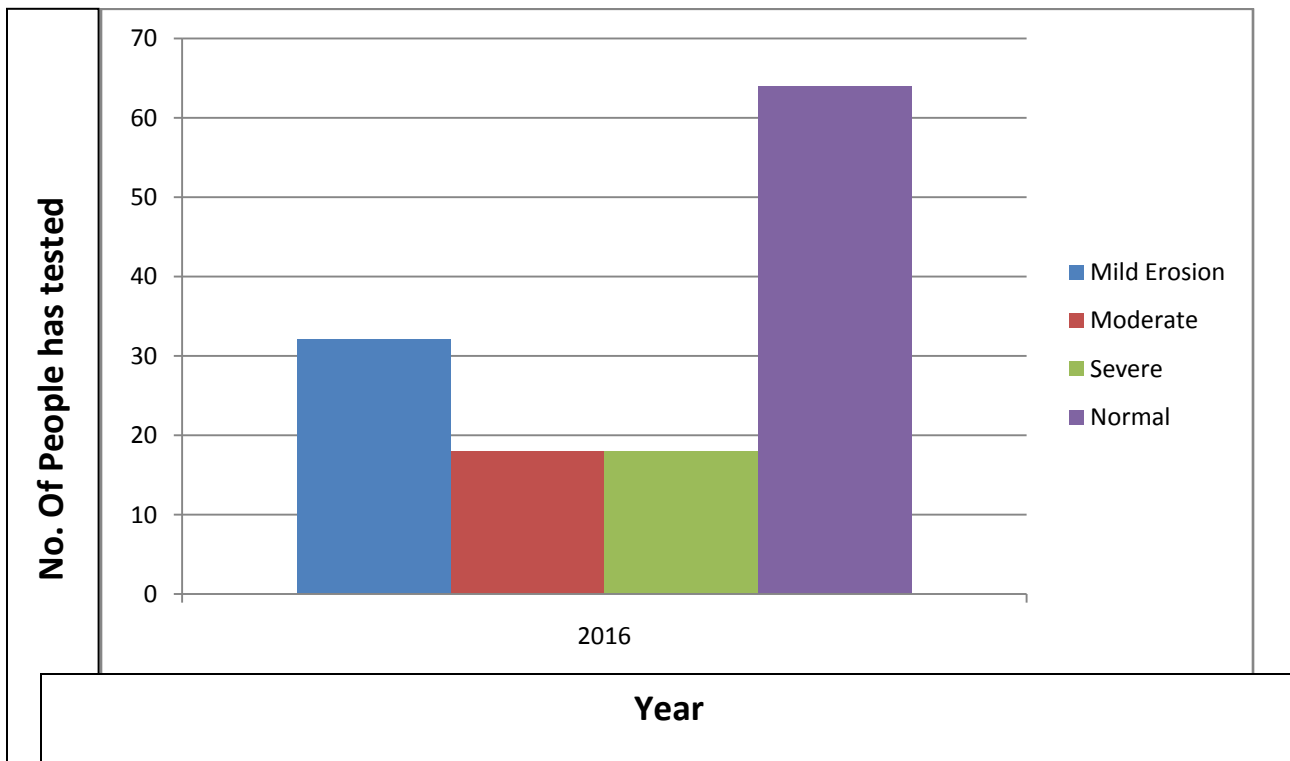
Table 1.1

S.No	SLIDE NO	NAME	AGE	IR.NO	MONTH	CERVIX condition
1	1160	Hazeenabanu	43	1107065	November 2018	Severe
2	1161	Vanithavasanth	43	1811060	November 2018	Severe
3	1162	Suganthi	52	1611177	December 2018	Moderate
4	1163	Arul mary	53	1622026	December 2018	Mild erosion
5	1164	Kokilaveni	63	1703100	December 2018	Moderate
6	1165	Rajakumari	28	1812054	December 2018	Mild erosion
7	1166	Bathrunisha	62	1311066	December 2018	Normal
8	1167	Velurani	67	1810133	December 2018	Mild erosion
9	1168	Malathi	55	1672220	December 2018	Moderate
10	1169	Vaishnavi	35	1689053	December 2018	Normal
11	1170	Banumathi	45	1601057	January 2019	Mild erosion
12	1171	Saroja	50	1506086	January 2019	Normal
13	1172	Sumathi	38	1901098	January 2019	Mild erosion
14	1173	Balanagajothi	45	1901098	January 2019	Severe

Patients Cervix condition status from November 2018 to January 2019

Graph 1.2

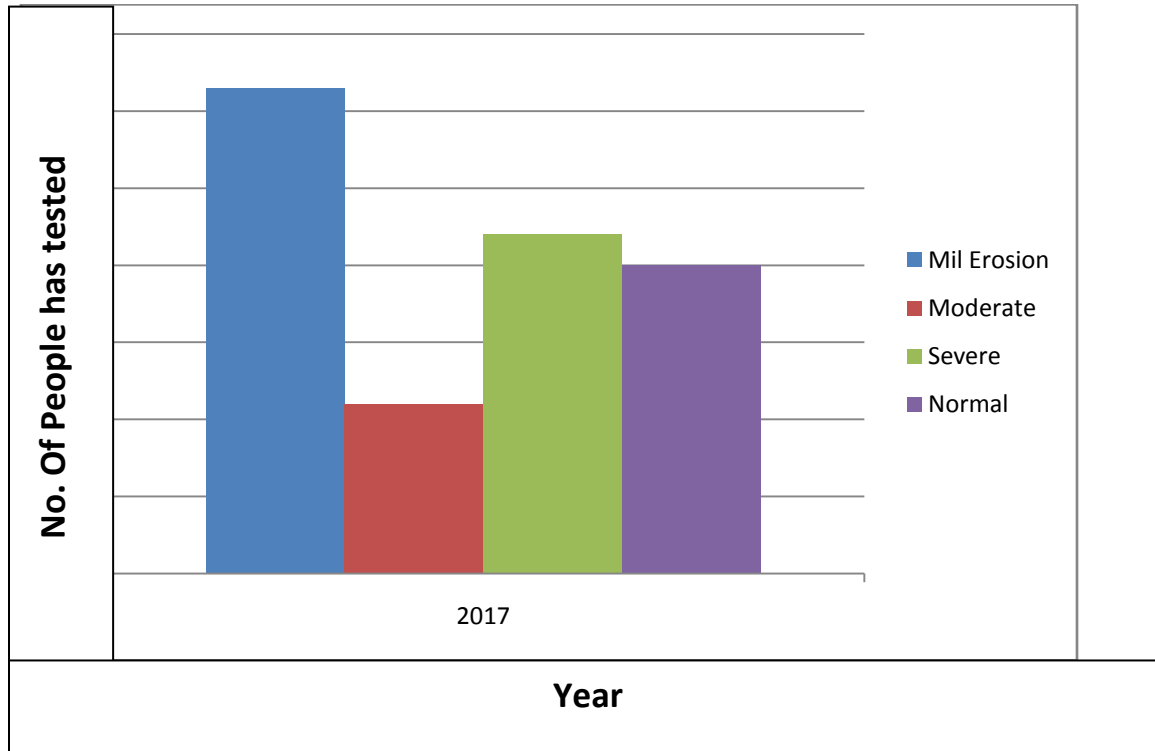
No. Of People has tested



PAP Smear test - 2016

- The number of patient who undercurrent PAP Smear at Harshamithra Cancer Hospital in 2016 in 132.

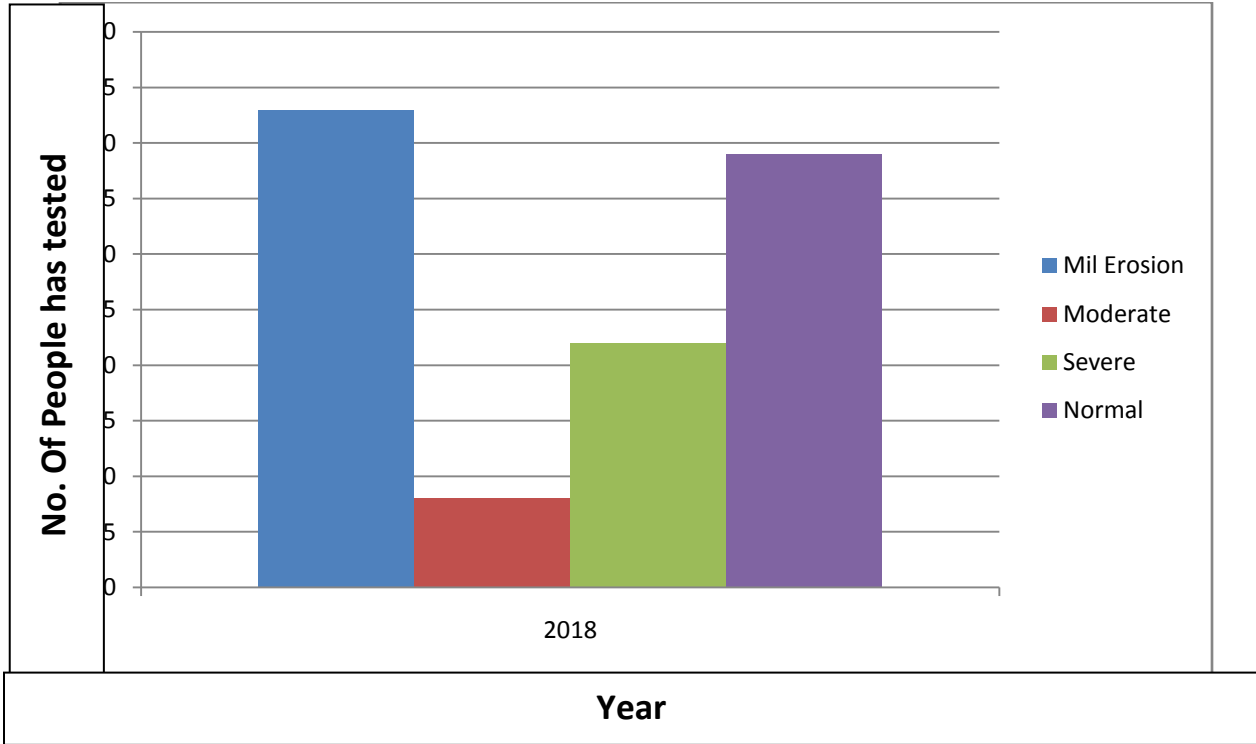
Graph 1.3



PAP Smear test - 2017

- The number of patient who undercurrent PAP Smear at Harshamithra Cancer Hospital in 2017 in 169.

Graph 1.4



PAP Smear test - 2018

- The number of patient who undercurrent PAP Smear at Harshamithra Cancer Hospital in 2018 in 112.

Table 1.2

s.no	Year	Cervix condition			
		Mid erosion	Moderate	Severe	Normal
1	2016	32	18	18	64
2	2017	63	22	44	40
3	2018	43	8	22	39

PAP test 2016 -2018

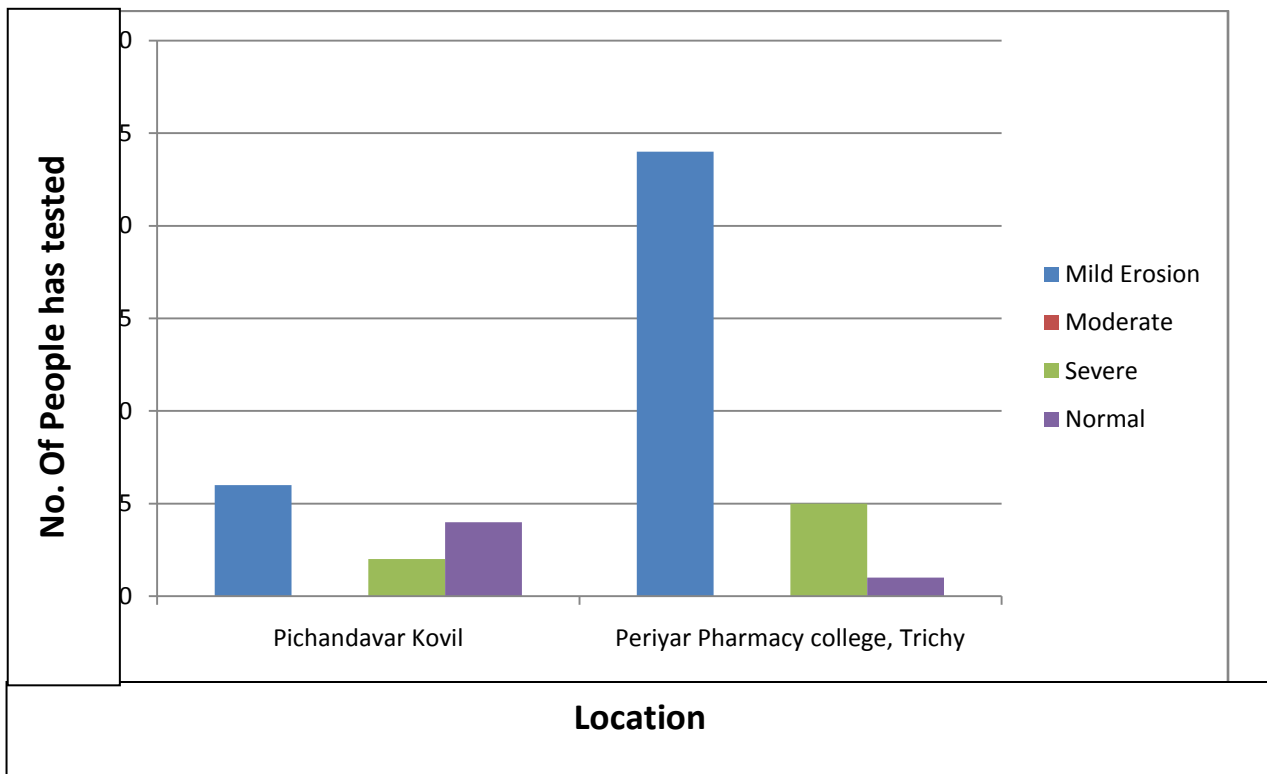
Cervix count from 2016 to 2018

Table 1.3

S.No	Screening Camp	Date of the Camp	No. Of sample			
			Mild Erosion	Moderate	Severe	Normal
1	PichandavarKovil	9/12/2018	6	-	2	4
2	Periyar Pharmacy college, Trichy	15/09/2018	24	-	5	1
3	Kottaarapatti	21/10/2018	1	-	4	6
4	Trichy	15/09/2018	19	5	5	4
5	Kannur	9/9/2018	2	-	5	1
6	Manganore	26/08/2018	1	-	-	7

PAP Smear sample of patient from cancer screening camp between october2018 to December 2018:

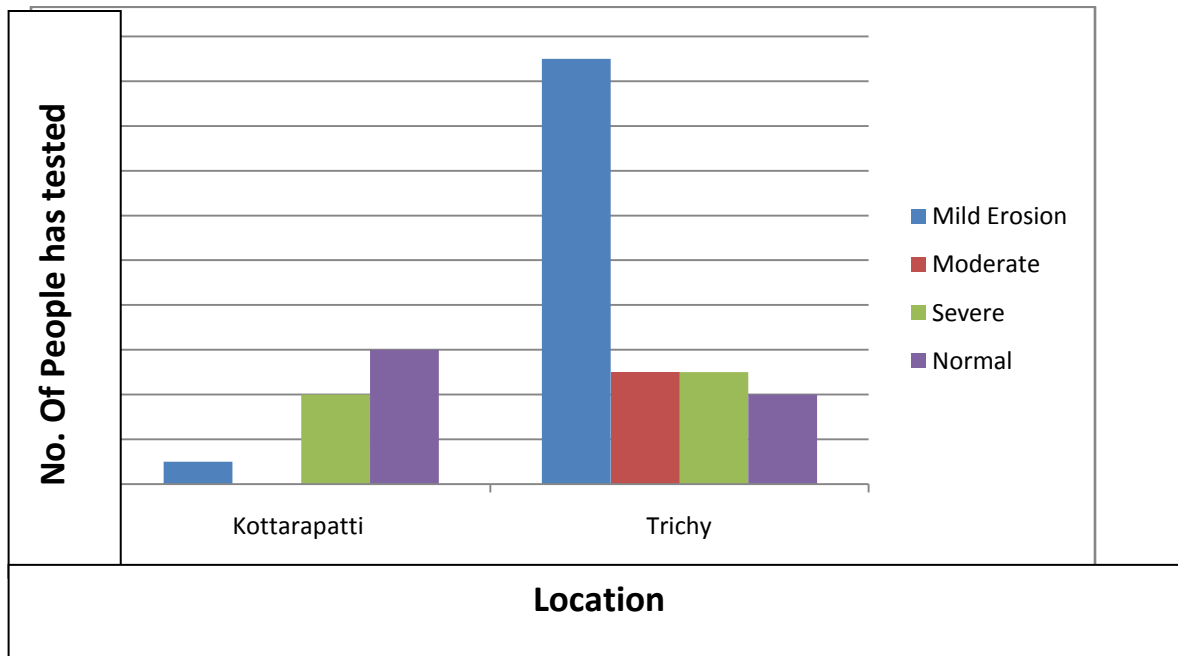
Graph 1.5



PAP Smear test at Pichandavarkovil and Periyar pharmacy college

- Harsha Mithra cancer hospital conducted free cancer screening camp @ Pichandavarkovil on 9/12/18.
- Approximately 38 members came for the test. 12 members only took the test and 26 members did not take this test due to various reasons. Like-noncomparable, periods extra...,
- Also they conducted free cancer screening camp conducted at Periyar Pharmacy College in Trichy on 15/9/18.
- Approximately 85 members came for the test. 30 members only took the test and 55 members did not take this test due to various reasons. Like-noncomparable, periods extra...,

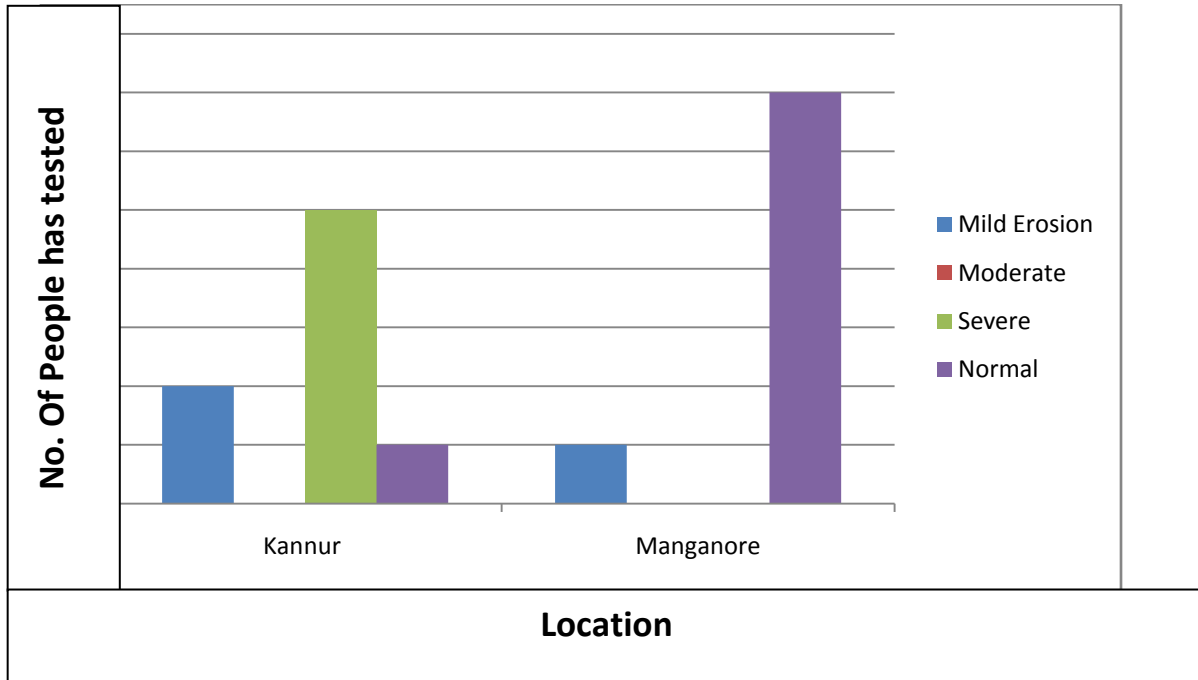
Graph 1.6



PAP Smear test at Kottarapatti and Trichy

- Harsha Mithra cancer hospital conducted free cancer screening camp at Kottaarapatti on 21/10/18.
- Approximately 40 members came for the test. 11 members only took the test and 29 members did not take this test due to various reasons. Like not comparable, periods extra...
- Also they conducted free cancer screening camp conducted at Trichy on 15/9/18.
- Approximately 90 members came for the test. 33 members only took the test and 57 members did not take this test due to various reasons. Like not comparable, periods extra...

Graph 1.7



- Harsha Mithra cancer hospital conducted free cancer screening camp @ Kannur on 9/9/18.
- Approximately 51 members came for the test. 8 members only took the test and 43 members did not take this test due to various reasons. . Like not comparable, periods extra...
- Also they conducted free cancer screening camp conducted at Mangalore on 26/8/18.
- Approximately 42 members came for the test. 8 members only took the test and 34 members did not take this test due to various reasons. Like not comparable, periods extra...

Result and discussion:

Cervical cancer is that the second commonest cancer among women worldwide, and up to 99 percent of all cases could even be attributed to infection by oncogenic HPV genotypes. (Walboomers JMM, Jacobs MV, Manos MM, et al.1999). Therefore, factors that reduce the probability of acquiring or transmitting HPV among men or women may reduce the danger of disease associated with these infections. During the past 15 years, the International Agency for Research on Cancer has performed several large cases–control studies of cervical cancer in several countries. We used data from these studies to assess the effect of male circumcision on the danger of genital HPV infection within the lads themselves and thus the danger of cervical cancer in their sexual partners. (Bosch FX, Manos MM, Munoz N, et al 1995) According to the planet health organization (WHO 2002) cervical cancer is claimed to be the world's second deadly cancer with an estimate of about 493,243 women diagnosed with it and 273,505 dying from it per annum . Cervical cancer is additionally the world's second most frequent among women between 15 and 44 years aged . In Finland about 2.23 million women aged 15 years and over are in peril of getting cervical cancer, current estimation states that out of 164 diagnosed with cervical cancer per annum about 81 of them die due to the disease. it's the 15th commonest cancer in Finland and thus the 4th commonest cancer among the women in Finland. (WHO 2002.) Cervical cancer was once mentioned because the deadliestcancer in America until the years 1955 to 1992 when its rates decreased by 70% because of increase in Pap smear screening and more awareness among society, it's said to mention no by 3% annually but the numbers still remain high. consistent with the American Cancer Society recent estimate states that within the year 2011 about 12,710 new cases of invasive cancer are getting to be diagnosed and of these about 4,290 deaths are going to be recorded. (American Cancer Society 2010).

I discussed about Impact of Human Papilloma virus in Indian Women.

- Gathered information about cancer, risk of cancer and other causes and different types of cancer.
- Incident and morality of Cervical cancer and disease burden
- About Human papilloma virus and is spread.
- Discussed about Cancer screening, Women screening PAP smear cervical cancer.
- Impact of human papilloma virus in Indian women.
- Staging cervical cancer.
- Different stages cervix cancer.
- Material method and procedure.
- PAP smear preparation.
- PAP smear test based on Mild erosion, Moderate, Severe and normal.

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