

# Epidemiology, risk factors and histopathologic characteristics of the common

## cancers in Trinidad.

Nirvana Dipnarine, Nirvan Maharaj, Nirvana Maharaj, Nikisha Mohammed, Nishtha Mohan, Nikita Sagar, Nikita Singh, Nikkiel Rennie,
Dr. Srikanth Umakanthan



Department of Para-Clinical Sciences, Faculty of Medical Sciences, The UWI

e: nirvana.dipnarine@my.uwi.edu Srikanth.Umakanthan@sta.uwi.edu

#### Introduction

Cancer is a leading cause of death worldwide and in Trinidad and Tobago occurring due to genetic factors, or certain external factors (carcinogens) including chemicals, radiation, aging, hormones and other endogenous and exogenous elements. A mutation causes by these elements in solid tissue may result in a tumor. The site of the developed tumor is used to classify the types of cancer. This project was undertaken to shed light on the prevalence of cancer, its risk factors and those of the population who are most susceptible.

### **Objective**

- $1.\,\mbox{To}$  determine the most prevalent types of cancers in both men and women over the age of 18 in Trinidad.
- To assess how the histopathology of tumors can help determine the prevalence of a certain cancer in terms of how well-differentiated the tumor is.
- 3. To identify the risk factors associated with the most prevalent cancers among men and women over the age of eighteen in Trinidad.

#### Methodology

A cross sectional retrospective study utilizing the medical records of adult male and female cancer patients at EWMSC.

The required patient records (histopathology reports, medical and family history) were obtained from the data registers at the department of laboratory services, EWMSC.

Data was entered into data collection sheets for further clinicopathological stratification, statistical analysis and evaluation for epidemiological risk factors

The program SPSS, was used for statistical analysis.

#### Results

- The majority of the sample size were female (63.64%).
- The age range was between 18-88 years old, with 70 as the mode age.



- Bar graphs showing the distribution of cancers among men and women over the age of 18 in Trinidad.
- The most common cancers in females were breast, lung and endometrial whereas in males, they were lung and colon.
- Overall, the most common cancer was lung cancer.

- Lung (47% Grade 3) and breast cancer (22.8% Grade 3) had the highest tumour grades; hence, they were the most malignant.
- Higher grade tumors (Grade 2 and 3) were mainly found in women (57%).
- The majority of cancers were adenocarcinomas (32.11%).
- The tumor types with the highest grades were squamous cell carcinoma (1.64% Grade 4 and 9.84% Grade 3), invasive ductal carcinoma (16.39% Grade 3) and adenocarcinoma (14.75% Grade 3).
- The most common risk factors were: hypertension, pulmonary disease, smoking and diabetes.

#### Discussion

- 1. Our findings indicate that there is a higher incidence of cancers among women; most commonly breast (40%), lung (16%) and endometrial cancers (10%). Women were also affected by higher grades of cancer with the prevalent tumor types being ADCs and IDCs.
- 2. Great incidence of high-grade breast cancer cases among the older population reflects later cancer screening among females.
- 3. The study suggests that pulmonary diseases (eg. asthma) and lifestyle factors such as smoking results in a high incidence of lung cancer among men (50%).
- 4. Risk factors such as hypertension, pulmonary disease and diabetes mellitus increases the risk of developing ADCs.

#### Conclusion

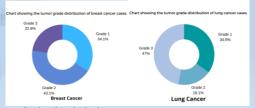
- 1. Women have the highest incidence rates in cancer. This indicates the need for investment in cancer education for the population, and to make cancer screening programmes more accessible to allow early detection.
- 2. Lifestyle choices increase the risk for developing malignant cancers, eg. smoking and lung cancer. This can be prevented by curbing tobacco usage and educating children about how their choices can greatly impact their health.

#### References

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Doughnut charts showing the percenatge distribution of cancer grades among the most prevalent cancer types; breast and lung cancer.