Distribution of Cancer Cases İn Somalia.

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ABSTRACT

Objective: The purpose of our study is to investigate the frequency and distribution of the pathology results of cancer cases at a certain time interval, in Somalia

Material and Methods: Total of 403 cancer cases were diagnosed between 01.01.2016-01.03.2017 in the pathology department at the Somali Mogadishu Turkey Education and Research Hospital and in the oncology department at Uniso Hospital/Somalia University. Types of cancer, the age and gender data were obtained from pathology reports and hospital record systems.

Results: 49.6 % of patients were female (n=200), 50.4 % were male (n=203). The youngest of the patients was 18 and the oldest was 97 years old. Average age was 53.4 years. The ten most common sites of cancer in all cases, in descending order were esophagus (n= 130, 32.3%), non-Hodgkin lymphoma (n=35, 8.7%), liver (n=26, 6.5%), breast (n=24, 6.0%), skin (n=17, 4.2%), thyroid (n=13, 3.2%), brain (n=12, 3.0%), bone (n=11, 2.7%), colorectal (n=11, 2.70%), and soft tissue (n=11, 2.7%). The ten most common sites of cancer in women were esophagus (n=66, 33.0%), breast (n=24, 12.0%), non-Hodgkin lymphoma (n=20, 10.0%), skin (n=11, 5.5%), cervix (n=10, 5.0%), thyroid (n=8, 4.0%), liver (n=6, 0.3%), Ovary (n=6, 3.0%), bone (n=5, 2.5%), and stomach (n=5, 2.5). In men, the ten most common sites of cancers were esophagus (n=64, 31.5%), liver (n=20, 9.9%), non-Hodgkin lymphoma (n=15, 7.4%), brain (n=11, 5.4%), colorectal (n=10, 4.9%), soft tissue (n=8, 3.9%), larynx (n=7, n=3. 4), prostate (n=7, 3.4%), skin (n=6, 3.0%), bone (n=6, 3.0%), and stomach (n=6, 3.0%).

Conclusion: These results show contrasting rates of distribution of esophageal cancer in Mogadıshu, Somalia. The very high rates observed in Somalia strongly suggest that strong environmental risk factors have an impact on this population. Making serious and extensive research on the etiology is required. Screening methods may cause the spread of priority. As a result, the determination of local cancer risk factors in the development of early diagnostic methods, the creation of the cancer registration system will form the basis for the project will be developed for the prevention of cancer.

Key words: Cancer, Somalia, esophagus, distribution

Introduction

Cancer is a leading cause of death in both more and less economically developed countries; the burden is expected to grow worldwide due to the growth and aging of the population, particularly in less developed countries, in which about 82% of the world's population resides (1). The adoption of lifestyle behaviors that are known to increase cancer risk, such as smoking, poor diet, physical inactivity, and reproductive changes (including lower parity and later age at first birth), has further increased the cancer burden in less economically developed countries (1). Estimating cancer incidence and mortality rate, the surface of the earth has been divided into 21 regions (top 21 cancer regions). The Somali is located in the Eastern Africa region, which is coded 1st. The estimated number of new cancer cases in this area is 287,300, according to the 2012 data (1).

In Somalia, mortality rate due obstetric, nutrition and infectious diseases is % 69, while due to cancer is %4 (2). There is no literature that demonstrates the cancer prevalence of Somalia. This is the first retrospective study assessing the distrubution of cancer patients, in Mogadıshu, and also in Somali. The articles in the literature have been made with the participation of Somalian migrants living in other countries. Because, Somali immigrants account for the largest proportion of African refugees coming to the U.S (3). Also, most articles focused on a single type of cancer (55%) and breast, cervical, and prostate were the most common among those studies. The majority of the studies were conducted with disease free samples (75%). Half used quantitative methods (50%) and there were only two intervention studies. Most research focused on women only (60%), and Nigerians (40%) and Somalis (30%) were the most represented nationalities in the articles. However, a significant number of studies (35%) did not specify nationality or had African immigrant samples (25%) that were less than 5% of the total sample, so no specific results about African immigrants were reported (4). The pathology department is becoming an important database in terms of cancer data, especially due to the regular registration of pathological data.

In this study, the cancer cases belonging to the Somali people were reported in the Department of Pathology of the Somali Mogadishu-Turkey Education and Research Hospital, and in oncology department at Uniso Hospital/Somalia Univercity between 01.01.2016-03.03.2017 and the cancer rates were analyzed.

Materials and Methods

A retrospective study of the 14 months period from January 2016 to March 2017 were carried out 403 cancer cases viewed in the department of pathology of Somalia Mogadishu-Turkey Education and research Hospital and in the department of oncology of Uniso Hospital/Somalia University. Somalia Mogadishu-Turkey Education and Research Hospital and Somalia University are the two referral hospitals in Mogadishu- the capital city of Somalia. These two hospitals serve as the general/referral center for more than 3 million people living in Mogadishu and the surrounding areas and neighboring regions. Our study focused on Somalis who are living in the cities of Mogadishu, Beladwayne, Kismaayo, Jawhar, Mudug, Baydhabo, Dhoobley, Qoryoley, Goday, Galkacyo, Ceelbuur, Cel dhear, Xarar dheere, Daafeed, Tiooglow, Baardhere. The cases of all pathology results due to cancer were reviewed by using the data collection format in pathology laboratory and oncology clinic. Childhood datas that are less than 18 years old were not included in the study. If there are more than one same organ biopsy from the same patient, the most representative sample were based on. The diagnosis of lymph node metastases is made by fine needle aspiration biopsy and the primary focus is undefined at this time. Demographic and histomorphological features of all cases were recorded and compared with the literature. The statistical analyses were performed using SPSS for Windows version 20. Descriptive statistics were calculated for all variables. Ethical approval was obtained from Ethical review committee of Mogadishu Somalia-Turkey Education and Research Hospital. Permission was also obtained from the department of pathology.

Results

From January 2016 to March 2017, 403 cancer cases were analyzed in department of pathology, Somalia Mogadishu-Turkey Education and Research Hospital and in department of oncology, Somalia University. In our study, 203 (50.4%) were male and 200 were female (49.6%) of 403 patients who were diagnosed with cancer. The organ, system and gender distributions of all cancer cases are shown in Table 1. Men to women ratio is 1.0. The mean age of patients at diagnosis was 53.4 years, with range of 18-97 years. The number of patients under the age of 50 is 160 (39.7%), and the number of patients over 50 years is 243 (60.3%). When we look at the age distrubation, cancer cases are seen in every decade. The overall cancer incidence in women and men is peaking at 6th decade. Cancer was detected more frequently in the 4th and 6th decades in males and in 6th and 7th decades in females (Figure 1). According to the organs, esophagus (n= 130, 32.3%), non-Hodgkin lymphoma (n=35, 8.7%), liver (n=26, 6.5%), breast (n=24, 6.0%), skin (n=17, 4.2%), thyroid (n=13, 3.2%), brain (n=12, 3.0), bone (n=11, 2.7%), colorectal (n=11, 2.70%), and soft tissue (n=11, 2.7%) cancers were the top ten most common

cancers respectively (Table 2). Esophagus (n=66, 33.0%), breast (n=24, 12.0%), non-Hodgkin lymphoma (n=20, 10.0%), skin (n=11, 5.5%), cervix (n=10, 5.0%), thyroid (n=8, 4.0%), liver (n=6, 0.3%), Ovary (n=6, 3.0%), bone (n=5, 2.5%), and stomach (n=5, 2.5) were the top ten most common cancers in women respectively (Table 3). Esophagus (n=64, 31.5%), liver (n=20, 9.9%), non-Hodgkin lymphoma (n=15, 7.4%), brain (n=11, 5.4%), colorectal (n=10, 4.9%), soft tissue (n=8, 3.9%), larynx (n=7, 3.4%), prostate (n=7, 3.4%), skin (n=6, 3.0%), bone (n=6, 3.0%), and stomach (n=6, 3.0%) cancers were the top ten most common cancers in men recpectively (Table 4).

Esophageal cancer was the most common cancer in all cases (n = 130, 32.3%) and in both sexes. Men (n=64, 31.5%) to women (n=66, 33%) ratio was 1.0. Esophageal cancer is seen every decade and is peaking in the 5th and 6th decades (Figure 2). Histological diagnosis of esophagus cancers were squamous cell carcinoma.

Non-Hodgkin lymphoma accounts for 8.7% (n=35) of all cancer cases, which made it the second most common of all cancers, but in women (n=20, 10%) and in men (n=15, 7.4%) are in the third place seperately.

Liver cancer accounts for %6.5 (n=26) of all cancer cases, which made it third most common of all cancers, but in women(n=6, 3%) are in the seventh place and in men (n=20, %9.9) in are the second place. Histomorphologically, 24 cases were diagnosed as hepatocellular carcinoma (HCC) and 2 cases were diagnosed as adenocarcinoma.

The second most common cancer in women was breast cancer (n = 24, 12.0%).

Discussion

Cancer has been included in the list of 'notifiable disease' in many developed and developing countries (5). It is important to establish cancer registry systems in order to determine etiological causes, perform necessary initiatives to prevent cancers, develop and control cancer biology studies (6). In undeveloped countries such as Somalia, the cancer registry system is not yet available. However, in the Somali Mogadishu-Turkey Education and Research Hospital, both the patient registration system and the archival system have been carried out in the pathology department in the past 2 years in a very healthy manner.

In this study, we have used hospital-based tissue archives and patient files of the pathology department of Somali Mogadıshu Turkey Education and Research Hospital and oncology of

department of Uniso Hospital / Somali University between 01.01.2016 to 01.03.2017 years in Mogadıshu, Somali, to evaluate the numbers, histological definition, gender and age distribution of cancers.

Estimating cancer incidence and mortality rate, the surface of the earth has been divided into 21 region (top 21 cancer regions). Less developed countries include all regions of Africa, Asia (excluding Japan), Latin America and the Caribbean, Melanesia, Micronesia, and Polynesia in top 21 cancer sites. Somali is located in the eastern africa region which is coded 1st (1). According to Globocan 2012 data published by International Agency of Research on Cancer (IARC), the estimated incidence of cancer per 100 000 people in eastern africa is 120.7 for males, 154.7 for females and 137.8 for males. The estimated mortality rates in this region are 103.8 in males, 110.5 in females and 106.5 in males (5).

The ten most common sites of cancer in developed countries, in descending order in men, were prostate, lung, colorectum, bladder, stomach, kidney, non-Hodgkin's lymphoma, skin melanoma, pancreas, liver while in women were breast, colorectum, lung, corpus uteri, ovarian, stomach, thyroid, pancreas, skin melanoma, non-Hodgkin's lymphoma. The ten most common sites of cancer in developing countries, in descending order in men, were lung, liver, stomach, prostate, colorectum, esophagus, bladder, oral cavity, leukemia, non-Hodgkin lymphoma while in women were breast, cervix uteri, lung, colorectum, stomach, liver, corpus uteri, ovary, thyroid, esophagus (4).

Esophageal cancer was the most common cancer in all cases (n = 130, 32.3%) and in both genders. Men (n=64, 31.5%) to women (n=66, 33%) ratio was 1.0 (Table 1-2). Esophageal cancer is seen every decade and is peaking in the 5th and 6th decades (Figure 2).

An estimated 455,800 new esophageal cancer cases and 400,200 deaths occurred in 2012 worldwide. Esophageal cancer incidence rates vary internationally by more than 21-fold. The highest rates are found in Eastern Asia and in Eastern and Southern Africa and the lowest rates are found in Western Africa. Esophageal cancer is usually 3 to 4 times more common among men than women. The incidence of eosphagel cancer at Eastern Africa in men is 11.9 and in women 7.8 (1). Eosophageal cancer is responsible for the second highest number of cancer-related deaths in South Africa (7).

In the highest-risk area, often referred to as the “esophageal cancer belt,” which stretches from Northern Iran through the Central Asian republics to North-Central China, 90% of cases are squamous cell carcinomas, compared with about 26% in the United States (among white individuals) (1, 8). In high-risk areas such as Golestan (Iran) and Linxan (China), contributing

risk factors are not well understood, but are thought to include poor nutritional status, low intake of fruits and vegetables, and drinking beverages at high temperatures (1, 9, 10).

HPV infection has been detected in squamous cell carcinomas, particularly in high risk areas in Asia. However, more research is needed to determine whether HPV or other infectious agents increase risk (11, 12), and also, its etiology has been understudied to date (13). The primary causes of squamous cell carcinoma of the esophagus are tobacco use and alcohol consumption (14-16), whereas the main risk factors for adenocarcinoma of the esophagus are gastroesophageal reflux disease and obesity (14). In the study of McCormack VA et al. found that for almost all esophageal squamous cell carcinoma risk factors known to date, including tobacco, alcohol, hot beverage consumption, nitrosamines and both inhaled and ingested PAHs, there is evidence of population groups with raised exposures, the sources of which vary greatly between cultures across the esophageal squamous cell carcinoma corridor (13). Squamous cell carcinoma is still the most common histologic type in the world. The areas with the highest incidence are found in Africa and the Middle East (17). In our study ,the histological diagnosis of all of the 130 cases of esophageal cancer was squamous cell carcinoma. In Somalia, alcohol use is certanly prohibited in religion terms. There are not alcohol production and sales in Somalia. In Somalia the prominent increase in the nitrogenous components in the foods cooked in the coal fire is a major factor for esophageal cancer. In addition to the risk factors, extreme hot brass rice and hot tea consumption habits and chewing Khat plant (Catha edulis) habits are also very common in Somalia (13). Khat is a shrub or tree whose leaves have been chewed for centuries by people who live in the Eastern part of Africa and the Arabian Peninsula. Among khat users in Yemen there is, however, a higher incidence of esophageal cancer compared with gastric cancer (18).

The incidence of non-Hodgkin lymphoma in Eastern Africa is 5.6 in males and 3.5 in females (1). In the literature, non-Hodgkin and Hodgkin lymphomas are strongly associated with the Epstein Barr virus in African countries (19-22). Non-Hodgkin lymphoma is more frequent in developed countries than in less developed ones with rates slightly higher in male than in female; The age-standardized estimated rate per 100,000, for 2008 in developed countries was 10,3 for men and 7/100000 for women (23). In our study, non-Hodgkin's lymphoma is in 7th place (n=7, 3.98) in both genders, 8th place (n=4, 4.65%) in females and 9th place (n=3, 3.33%) in males.

Cervical cancer (CC) is the world’s third most common cancer among women, with an age standardized incidence rate (ASR) of 14 per 100,000 women. The main bulk of CC cases occur in developing countries (85 %), yet North African countries show an overall low incidence

(ASR: 6.6 per 100,000) (19). CC is the second most common cancer among women in Algeria and Morocco and the third most common cancer in Tunisia (19). In our study, CC was in 5th place (n=5, 10%) in women. Almost 100 % of all CC cases are caused by the HPV, which ranks as the most common sexually transmitted infection globally. Data of a meta-analysis also reported that the crude and adjusted HPV prevalence among women with normal cytological findings in North Africa (Egypt, Tunisia, Morocco and Algeria) were estimated at 10.9 % and 9.2 %, respectively (19).

Liver cancer or HCC, about 85 % of cases occur in developing countries with 2.4:1 male to female ratio. In North African, liver cancer is the most common cancer in men and the second most common one among women with an estimated ASR of 18 and 7 per 100,000 men and women, respectively. A large disparity exists with a decreasing East-West gradient observed across the region, where incidence in both sexes ranges from a lowest of 1.1/100,000 in Tunisia to a highest of 25.5/100,000 in Egypt (19). In our study, liver cancer is in 3th place (n=26, 6.5%) in both genders, 7th place (n=6, 3%) in females and 2th place (n=20, 9.9%) in males. As Hussein WM, et all, The male:female ratio reaches 3.3:1, probably because of the higher prevalence of HBV and HCV among men (19).

Breast cancer incidence rates have been rising in many countries in South America, Africa, and Asia (24). The median age of women diagnosed with breast cancer in 2009 was 47 years old (range 25-89). The most frequent clinical presentation was breast swelling with axillary lymph nodes metastasis (44.9 %), followed by a mass larger than 5 cm (14.2 %) and lump (12.9 %). Invasive ductal carcinoma was the main histologic type (81.8 %) (25). In our study, breast cancer is at 6th place in women. In Somalia, the reason for the low incidence of breast cancer may be explained by cancer screening methods are not enough and refused screening and treatments methods in socio-cultural terms. Histological diagnosis of the cases are invasive carcinoma.

Stomach cancer is the 4th common cancer in men and the 6th in women worldwide with an ASR of 17.4 and 7.5 per 100,000 respectively. Stomach cancer incidence is much less in North African (age-standardized incidence rate: 4.3 and 2.7 per 100,000 in men and women, respectively) with an increasing EastWest gradient (26). Stomach cancer rates are generally about twice as high in men as in women and vary widely across countries. In general, incidence rates are highest in Eastern Asia (particularly in Korea, Mongolia, Japan, and China), Central and Eastern Europe, and South America and lowest in Northern America and most parts of Africa. Regional variations in part reflect differences in dietary patterns, food storage, and the availability of fresh produce, as well as the prevalence of Helicobacter pylori infection (1) (27).

Chronic infection with H. pylori is the strongest identified risk factor for stomach cancer, with about 90% of new cases of noncardia gastric cancer worldwide attributed to this bacteria (28). In the study of Mabula JB et al., the ratio of male to female in gastric carcinoma patients was 2.9:1. The median age of patients was 52 years. The majority of the patients (92.1%) presented late with advanced gastric cancer (Stages III and IV). The antrum was the most frequent anatomical site (56.5%) involved and gastric adenocarcinoma (95.1%) was the most common histopathological type (29).

In our study, thyroid cancer is in 3th place (n=7, 8.14%) in males, 10th place (n=3, 3.33%) in females. Worldwide, thyroid cancer (TC) accounts for about 1–5% of all cancers. Incidence rates are consistently higher by 3–7-fold in females than in males and range from less than 1 per 10^5 person-years (in sub-Saharan African males) to over 10 per 10^5 person-years (in Caucasian North American females) (30).

Colorectal cancer rates are low in Africa and South-Central Asia. Rates are higher in men than in women in most parts of the world. Eastern afrikada insidansı 30.4, mortalite oranı ise 15.6 dır (1). Cancer screening methods such as pap smear, colonoscopy and mammography are less frequently used in somali patients than non somali patients (31). Similarly, in our study, patients are referred to traditional or non-scientific treatments and therefore refer to the hospital in advanced stages. The number of colorectal carcinoma is low in our study (n=5, 2.84%), but colorectal carcinoma is in 9th place in both genders, 6th place in males. All cases were histologically diagnosed as adenocarcinoma.

Eastern afrikada Prostate Cancer Incidence 23.3 and Mortality 18.7 (1). A study in the Algerian population had found that risk factors for prostate cancer were red meat intake, high animal fat and dairy consumption, family history, alcohol consumption, and smoking. It has been found to be a protective effect of the intake of fruits and vegetables at a high level (32). Somalia is a socioeconomically lower country. In our study, the number of cases of prostate carcinoma is low (n=4, 4.44%) and it is in the 8th place. This may be related to nutritional habits such as esophagus and stomach carcinoma.

Cervical cancer remains the second most common cancer among women of East African descent with a high level of mortality 25073605 In 2012, the World Health Organization reported a cervical cancer incidence rate in Somalia of 34.8 new cases per 100,000 and mortality from cervical cancer at 22.5 per 100,000; these figures contrast sharply with the relatively low incidence and mortality for women in North America; 6.6 and 2.5 per 100,000 women, respectively

The incidence of cervical cancer in eastern Africa is 42.7 and the mortality rate is 27.6, with the highest rates in the World (1). Cervical cancer is more common in the Somali immigrant population than the general population in the United States. There are low rates of cervical cancer screening among Somali women (33). There was a general lack of knowledge around the benefits of cervical cancer screening. Religion plays a significant role within the Somali community. Accepting the will of God is important and many women reported that prevention has no impact because if God plans for someone to get sick, they will despite screening. The process of undergoing pelvic examination was perceived to be invasive and use of instruments such as a speculum was identified as a problem (Pain, fear and embarrassment) (3). In our study, cervical cancer was found in women in the 7th place (n = 4, 4.44%). No cervical screening program is available in Mogadishu. Cervical examination can be performed less frequently. As Ghebre RG at. al.'s (3) study similar problems in Mogadishu may explain the low number of cervical cancer.

The incidence of bladder cancer in Eastern Africa is 3.3 in males and 2.0 in females (1). Bladder cancer is the 5th most common cancer in Setif women. Algerian women show the highest rates of gallbladder cancer as compared to the other Arab countries where this cancer is generally rare. The temporal trends showed a favorable pattern in the 15– 44 age group suggesting that differential risk factors are acting (34). In our study, bladder cancer was found to be in the 9th place (n = 2, 2.33%) in females.

The incidence of lung cancer in Eastern Africa is 7.1 in males and 6.1 in females (1). Lung carcinoma is not present in our study. This does not mean that lung carcinoma is not frequent in Somalia. Patients may have been referred to different hospitals (eg. Tuberculosis Hospital).

Although cancer mortality seems to be low, untreatable and informal deaths are common in Somalia. There is also an increase in the incidence of cancer in advanced age. Understanding population-specific health beliefs, health information, and behavior are crucial for designing tailored prevention programs for Somalian people (35).

Conclusion;

These results show contrasting rates of distrubition of esophagus in Somali. The very high rates observed in Somali strongly suggest that strong environmental risk factors have an impact on this population. Our study is limited by the fact that it is not based on formal, population-based cancer registration. On the other hand, its strength is that it uses high-quality, centralized pathology reports, providing an accurate basis for diagnosis. Further studies are needed to determine whether preventive intervention may help to curb the high rates of esophagus and

non-Hodgkin lymphoma observed in Somali. Furthermore, studies on the incidence of esophagus in other parts of rural Mogadıshu, Somali are warranted. The role of environmental factors that underlie some epigenetic changes in some of the cancers must investigation. There is a sign that Africa is trying to keep pace with the paradigm shift and focusing on translational medicine. Training planning should be done in this respect. A cancer registry system should be established.

Conflict İnterest

The authors report that they have no conflict of interests. This article has not been supported by any organization and has not been published and is not under review for publication by any other journal.

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Figure Legends

Figure 1: Frequency of cancer patients according to age range, number of males and females.

Figure 2: Numerical distribution of esophageal cancer cases according to age intervals.

Tables

No	Localization	n	%	Male	Male (%)	Female	Female (%)
1	Esophagus	130	32.3	64	31.5	66	33.0
2	Non-Hodgkin Lymphoma	35	8.7	15	7.4	20	10.0
3	Liver	26	6.5	20	9.9	6	3.0
4	Breast	24	6.0			24	12.0
5	Skin	17	4.2	6	3.0	11	5.5
6	Thyroid	13	3.2	5	2.5	8	4.0
7	Brain	12	3.0	11	5.4	1	0.5
8	Bone	11	2.7	6	3.0	5	2.5
9	Colorectal	11	2.7	10	4.9	1	0.5
10	Soft tissue	11	2.7	8	3.9	3	1.5
11	Stomach	11	2.7	6	3.0	5	2.5
12	Cervix uteri	10	2.5			10	5.0
13	Oral cavity	9	2.2	5	2.5	4	2.0
14	Primer uncertain	9	2.2	5	2.5	4	2.0
15	Kidney	8	2.0	5	2.5	3	1.5
16	Larynx	8	2.0	7	3.4	1	0.5
17	Nasopharynx	8	2.0	5	2.5	3	1.5
18	Prostate	7	1.7	7	3.4		
19	Ovary	6	1.5			6	3.0
20	Bladder	5	1.2	2	1.0	3	1.5
21	Hematopoietic	5	1.2	3	1.5	2	1.0
22	Malign melanoma	4	1.0	2	1.0	2	1.0
23	Eye	4	1.0	3	1.5	1	0.5
24	Gallbladder	3	0.7	2	1.0	1	0.5
25	Lungs	3	0.7	2	1.0	1	0.5
26	Pancreas	3	0.7	1	0.5	2	1.0
27	Corpus uteri	3	0.7			3	1.5
28	Salivary gland	2	0.5	1	0.5	1	0.5
29	Hodgkin Lymphoma	1	0.2	1	0.5		
30	Mesothelioma	1	0.2			1	0.5
31	Testis	1	0.2	1	0.5		
32	Vagen	1	0.2			1	0.5
33	Pleural effusion	1	0.2			1	0.5

	Total	**403**		**203**		**200**	

Table 1: Organ / system and gender distribution of all cancer cases from 01.01.2016 to 03.03.2017.

No	Most common 11 cancer types in both genders	n	%
1	Esophagus	130	32.3
2	Non-Hodgkin Lymphoma	35	8.7
3	Liver	26	6.5
4	Breast	24	6.0
5	Skin	17	4.2
6	Thyroid	13	3.2
7	Brain	12	3.0
8	Bone	11	2.7
9	Colorectal	11	2.7
10	Soft tissue	11	2.7
11	Stomach	11	2.7

Table 2 : The eleven most common cancers in both genders.

No	Most common 10 cancer types in female	N	%
1	Esophagus	66	33.0
2	Breast	24	12.0
3	Non-Hodgkin Lymphoma	20	10.0
4	Skin	11	5.5
5	Cervix	10	5.0
6	Thyroid	8	4.0
7	Liver	6	3.0
8	Ovary	6	3.0
9	Bone	5	2.5
10	Stomach	5	2.5

Table 3: The ten most common cancer in women.

No	Most common 11 cancer types in male	n	%
1	Esophagus	64	31.5
2	Lİver	20	9.9
3	Non-Hodgkin Lymphoma	15	7.4
4	Brain	11	5.4
5	Colorectal	10	4.9
6	Soft tissue	8	3.9
7	Larynx	7	3.4

8	Prostate	7	3.4
9	Skin	6	3.0
10	Bone	6	3.0
11	Stomach	6	3.0

Table 4 : The eleven most common cancers in males