Register of Oncological Diseases in Canton Sarajevo

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SUMMARY

The register of oncological diseases in Canton Sarajevo is important as it can be used to track and improve healthcare, especially in older age groups. The oncological registers are a way of recording data, suitable as a source of indicators. In the analyzed register, 1124 new cases of malignancy were recorded. There are slightly more malignant diseases in male (53%). The incidence of cancer varies depending of the age of patients. This analysis gives us important estimation in the relation of cancer morbidity, cancer types, age distribution, demographic factors, cancer stages and important cancer risks. The register and the analysis give us a chance for correlating and comparing the state of oncological diseases with other countries.

Keywords: cancer, risk factors, prevalence, oncological diseases register

1. INTRODUCTION

The oncological registers are a way of recording data, suitable as a source of indicators (1, 2, 3). Contemporary medicine uses indicators for: analyzing current status of population, comparing health condition of population with other areas or other countries, measuring changes in population for certain period, monitoring general social and economic development of the country and monitoring achievement of health programs at different levels

This investigation has several aims, but most important are: precise data management; precise information collection; analysis of cancer morbidity and types of cancer; analysis of cancer stages in relation with aging, gender and health protection.

2. METHODS AND SAMPLING SIZE

All residents of Canton Sarajevo were included in the sample, and the cases of newly discovered malignant diseases in 2007 were included in the questionnaire investigation. The rules of Agency IACR for register sampling were followed, as well as the rules of the World Health Organization CINDI program for the questionnaire sampling (1, 2). The questionnaires with data about patients were received from health care organization that made the diagnosis and provided the treatment.

3. RESULTS

The number of patients with newly discovered invasive malignant neoplasm (codes ICD 10: C00-C97; without C44 - cancer of skin) in Sarajevo Can-

ton is 1124, with the incidence rate of 268.2/100,000 inhabitants. There are slightly more cases in male (53%).

All investigation results are prepared according to the standards of the Agency IACR and CIOMS Organization. The investigation also provided us with the chance for finding relevant clinical information about healthcare organization and healthcare services (screening, medical treatment etc.).

The incidence of malignant diseases increases with age of patients for both sexes. The majority of cases were in population older than 55 (Figure 1). In younger age group, the incidence is slightly higher for female population (because breast cancer is diagnosed earlier than in cases of other malignant diseases) (Table 1). In older age group, the incidence is higher for male population (Table 2).

The most common malignant disease in female population is breast carcinoma for all age groups with highest incidence in the 55-64 age group (Table 1). Other malignancies are more common in patients older than 64. The second most common malignancy is cervical carcinoma (which can be prevented by screening tests). Gastrointestinal malignancies are represented with gastric and colorectal malignancies. The fifth most common malignancy is carcinoma of uterus.

The most common malignant disease in male population is lung carcinoma for all age groups with peak in the

TABLE 1. The incidence of most common malignancies according to age for female

Type	0-14	15-24	25-34	35-44	45-54	55-64	65 i<
Breast	0	5	6,2	25,8	36,2	58,2	45,6
Gastric	0	0	0	0	1,9	10,8	32,2
Cervix of uterus	0	0	0	13,9	22,9	10,8	18,8
Colorectal	0	0	3,1	5,9	9,5	13	32,2
Corpus of uterus	0	0	0	0	5,7	25,9	18,8

TABLE 2. The incidence of most common malignancies according to age for male

Type	0-14	15-24	25-34	35-44	45-54	55-64	65 i<
Bronchi, lungs	0	0	0	2,9	41,1	37,2	85
Urinary bladder	0	0	0	8,6	24,7	37,2	58
Larynx	0	0	0	11,4	24,7	27,9	50,2
Colorectal	0	0	0	8,6	8,2	37,2	61,8
Prostate	0	0	0	0	2,7	12,4	73,4

FIGURE 1. The number of people with malignant neoplasm in 2007 by age group and sex

FIGURE 2. The most common malignancies in Canton Sarajevo (year 2007)

oldest group (Table 2). The other malignancies are also more common in patients who are 65 years old and older. The second most common malignancy is colorectal cancer. The incidence in male population is about two times higher than in female. The third most common malignancy is prostate carcinoma, especially in the oldest group.

In overall, the most common malignancy is breast cancer with incidence of 43.2/100,000 or 16.11% of all malignancies (Figure 2). The second most common is bronchial or lung carcinoma with slightly lower incidence (38.7/100,000 or 14.41%). The incidence of ten most common malignancies for year 2007 is shown in Figure 2.

If we look at the demographic distribution, that is the incidence in different municipalities, we can see that the highest incidence of malignant disease is in Hadžići and Ilijaš communities (Figure 3). These communities are suburban and are the areas where massive bombing was executed by NATO forces against military targets located close to the populated areas (especially in/close to Hadžići).

4. CONCLUSION

Main aim of our investigation is to present trends on cancer morbidity in Canton Sarajevo with details on different cancer types - different diagnoses, but also to analyze the status of the organization of our healthcare and status of the health services (4,5). The analysis of oncological register and

TABLE 3. The most common malignancies in Canton Sarajevo (year 2007)

Rang	Primary localization (X Revision of ICD)	No of cases	Index of structure	Rate of 100.000 people
1	Cancer of breast (C50)	181	16,11%	43,2
2	Cancer of trachea, bronchi and lungs (C33-C34)	162	14,41%	38,7
3	Cancer of prostate (C61)	93	8,28%	22,2
4	Cancer of urinary bladder (C67)	89	7,92%	21,2
5	Colorectal cancer (C18, C19-C20)	69	6,14%	16,5
6	Cancer of kidneys (C64)	46	4,09%	10,9
7	Cancer of larynx (C32)	39	3,46%	9,3
8	Gastric cancer (C16)	35	3,12%	8,3
9	Cancer of uterus (C54)	33	2,94%	7,9
10	Ovarian cancer (C56)	32	2,84%	7,6
	Other malignancies	345	30,69%	82,3
	Total Canton Sarajevo	1124	100,00%	268,2

FIGURE 3 Incidence rate of malignant neoplasm in different municipalities of Sarajevo Canton (year 2007)

the methodology of the investigation are important for health management and data collection aimed at control and prevention of cancer, as well for improving of our general healthcare system and the strategy for improving healthcare services. We consider that this investigation will contribute to such improvements at both cantonal and national level, and will aid in the data exchange with other countries.

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