



The frequency of skin cancers in Kermanshah City, Iran, during the years 2003-2012

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Short Communication

Abstract

BACKGROUND: Skin cancer is the most common malignancy in the world, and besides the malignant type that has a high mortality rate, other cancers causes many complications and deaths as well. The incidence of skin cancer has increased over the recent decades. The present study aimed to assess the incidence of skin cancers in the city of Kermanshah, Iran, in a period between 2003 and 2012.

METHODS: This was a retrospective cohort study, for which all the data was collected from the Cancer Registry Health Center in Kermanshah Province. The study population consisted of 2,660 individuals that had been diagnosed with skin cancer between the years 2003 and 2012. Analysis of obtained data was performed using SPSS statistical software.

RESULTS: The prevalence of skin cancer in Kermanshah was 2,660 people over the last ten years. Skin cancer had a uniform trend, but it had increased from 212 individuals to 282 over the past decade. Although this cancer could be found in all ages, but in 2004, it was mostly diagnosed in the seventh decade of life.

CONCLUSION: The results showed that the prevalence of skin cancer is in fact high. Given that skin cancer is one of the most common cancers, it is necessary to take steps toward reducing the risk factors of this cancer by management and proper planning.

KEYWORDS: Skin Cancer, Age, Prevalence

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Introduction

Cancer is a generic name for a large number of diseases associated with abnormal growth of cells.¹ Skin cancer is a major public health problem. Recent studies in most countries indicate a high prevalence of skin cancer, and an increasing incidence rate of this disease. Despite the decrease in the overall amount of cancer in recent years, skin cancer has had a 3-5 percent increase each year with the

potential for prevention and treatment.²

Skin cancer alone, accounts for 32.7% of all the cancer cases in Iran, being the most common type of cancer in men, and the second most common cancer in women after breast cancer.³ The incidence of this cancer is 16.15% in Iran,⁴ while in 2004, it was 10.13 per 100,000 people.⁵ Exposure to chronic light of the sun leads to creation of certain chemical agents that cause skin tumors.⁶

A study by Yazdanfar and Ghasemi in Hamadan, Iran, showed that most of the patient with skin cancer during the years 1991-2007 were men (67.2%).⁷ In another study

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by Noorbala in Yazd, Iran, skin cancer was reported as 646 (27.3%) among 2360 cases of cancer during the years 1988-1996, with the highest incidence of skin cancer.⁸

Considering the prevalence of skin cancer and the lack of comprehensive information on this type of cancer, this study was conducted to determine the prevalence of skin cancer in Kermanshah City, Iran, in a period between the years 2003 and 2012.

Materials and Methods

In this historical cohort study, the data on skin cancer were collected from Kermanshah Health Center for a period between 2003 and 2012. It should be noted that the aim of this study was to obtain the frequency of skin cancer in all age groups. The statistical population of the study was comprised of all the people who were diagnosed with skin cancer during ten years. Information obtained from archival records (including hospitals, and all specialized diagnostic centers for skin cancer in Kermanshah) in health care centers.

The data was analyzed using SPSS software (version 18, SPSS Inc., Chicago, IL, USA), and descriptive statistics tables and charts.

Results

According to the results, 2,660 persons were diagnosed with skin cancer over this

10-year period, which included 1578 men and 1082 women.

The frequency of skin cancer in terms of age is demonstrated in table 1. It shows that the ages of 0-9 years, and the ages of 70-79 years have the lowest and the highest rates of prevalence, respectively. Observing the frequency of skin cancer over studied 10 years showed that the rate of this cancer considerably varied at different points in time, with the highest rates in years 2005 and 2011, with 309 and 307 cases, respectively. The number of people suffering from this cancer was 212 in 2003, and 282 in 2012.

The frequency of skin cancer in Kermanshah City during a period between the years 2003 and 2012 is shown in figure 1.

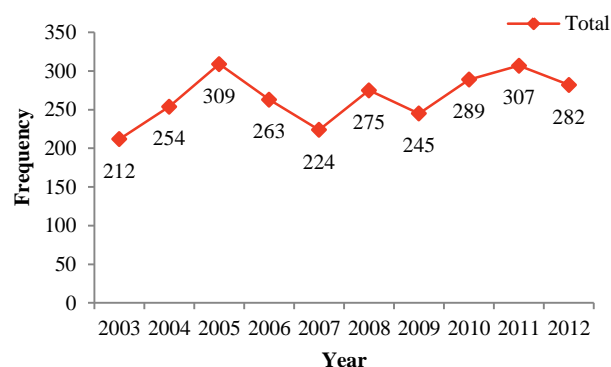


Figure 1. The frequency of skin cancer in Kermanshah City, Iran, during a period between the years 2003 and 2012

Table 1. The frequency of patients with different age group with skin cancer in Kermanshah City, Iran, during a period between the years 2003 and 2012

Year	Age groups (years)										Men	Women	Total
	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	+90			
2003	0	2	3	11	19	26	50	68	20	13	117	95	212
2004	0	1	5	17	41	47	56	60	20	7	147	107	254
2005	1	2	5	10	34	61	58	89	39	10	182	127	309
2006	0	1	6	16	28	47	46	73	40	6	143	120	263
2007	4	1	3	14	25	45	41	62	29	0	134	90	224
2008	0	1	4	20	34	57	71	50	37	1	167	108	275
2009	2	1	3	18	25	60	58	54	23	1	145	100	245
2010	3	0	2	15	30	54	65	81	37	2	172	117	289
2011	0	2	3	20	40	53	68	71	49	1	187	120	307
2012	1	2	4	13	32	55	70	63	37	5	184	98	282
Total	11	13	38	154	308	505	583	671	331	46	1578	1082	2660

The frequency of skin cancer among the men was higher than that of the women. The frequency of skin cancer in terms of gender in Kermanshah during studied 10 years is demonstrated in figure 2.

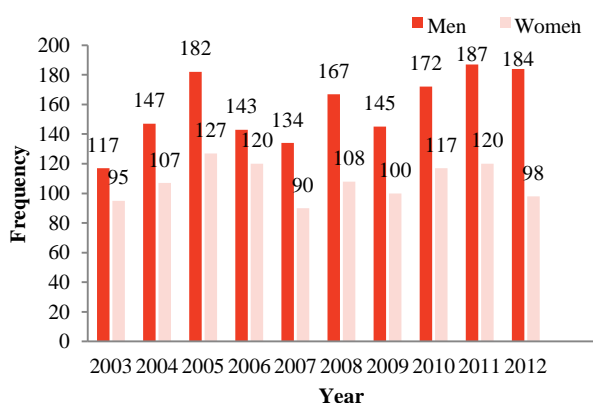


Figure 2. The frequency of skin cancer in terms of gender in Kermanshah City, Iran, during a period between the years 2003 and 2012

Discussion

The results of this study showed that within studied 10 year period, 2,660 persons were diagnosed with skin cancer. Afzali *et al.* study, which assessed the data collected during the years of 1999 to 2012, showed that the provinces of Khuzestan and Fars have the highest incidence of skin cancer in the South of Iran. It appears that the incidence of skin cancer, that is high in southern provinces of the country, is due to more exposure to sunlight, increased life expectancy, and exposure to various risk factors.⁹

Our results showed that the rate of skin cancer rises from the age of 50 years. A study by Yazdanfar and Ghasemi suggests that skin cancer is more common in older ages,⁷ which is consistent with the present study. Noorbali *et al.* study showed that frequency of skin cancer increased in Yazd City, during 9 years;⁸ the findings were similar with the results of this study.

The present study was conducted in order to determine the prevalence of skin cancer at

different ages, in a period of ten years, and as it was revealed that 1,578 men (59.32%) and 1,082 women (40.68%) had skin cancers. Yazdanfar and Ghasemi study showed that most people with skin cancer in Hamadan were men (67.2%) in a 17-years period;⁷ which is in conformity with the results of the present study. Moreover, A study conducted by Amouzgar *et al.* at Qaem hospital in Mashhad, Iran, showed that men are more affected by skin cancer.¹⁰ Afzali *et al.* study also showed that skin cancer was found in 15.84% of men and in 13.69% of women in Kermanshah.⁹ It seems that the more prevalence rate among the men is due to having routine activities in open and sunny environments, or more exposure to carcinogens.^{11,12}

Conclusion

Given the high rates of skin cancer, if the disease is detected and diagnosed at an early stage, it can be cured and better predicted. Given that one of the risk factors for skin cancer is exposure to sunlight, there are ways to prevent it, such as limiting out-of-home activities or stopping these activities altogether, avoiding exposure to sunlight between 10 am and 4 pm, and wearing protective clothing such as wide hats and long-sleeved shirts, as well as using protective sunscreen with the sun protection factor (SPF) of 15 and higher. Overall, paying attention to prevention and early detection of skin cancer is of immense importance.

Conflict of Interests

Authors have no conflict of interests.

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