

# Epidemiology and trend in skin cancer mortality in Iran

Sir,

Currently, skin cancer is the one of most common cancers in Caucasians. The incidence rate of skin cancer is increasing as in developed countries; one in six persons will develop the skin cancer in their lifetime.<sup>[1]</sup> Studies indicate that causes of the increased rate can be due to an excessive sun exposure, exposure to natural and artificial ultraviolet light, increased activity in the environment, changing the type of dress, and immune system-suppressing diseases.<sup>[2]</sup> Although the mortality rate of the skin cancer is decreasing worldwide,<sup>[3]</sup> the increase of the skin cancer prevalence may result in an increase of mortality rate in the future. Skin cancer is the most common cancer in Iran.<sup>[4]</sup> This cancer is the first most common cancer for men (standard incidence rate = 18.93) and the second most common cancer for women (standard incidence rate = 13.09) in Iran.<sup>[5]</sup> The aim of this study is to estimate the mortality rate of skin cancer and its epidemiology trend in Iran during 2006-2010.

In this study, we analyzed the data related to the number of deaths caused by skin cancer during 2006-2010 in 29 provinces by the Network Management Center, Department of Information Management and Technology and Applied Research of The Ministry of Health and Medical Education. In this study, data on mortality in skin cancer after excluding the null code, extracting, and a picture of trends in mortality from skin cancer in the country were drawn.

The result of the study showed that there have been 1448 deaths (men: 878, female: 878) due to skin cancer in Iran from 2006 to 2010. This study indicates that mortality rate has decreased from 0.546/100,000 in 2006 to 0.522/100,000 in 2010. The results showed that the mortality rate derived from skin cancer is higher for women in comparison to men during the years of

study so that the mortality rate has decreased from 0.693/100,000 to 0.642/100,000 for women, but that has increased from 0.395/100,000 to 0.4/100,000 for men between the years of 2006 and 2010. Gender ratio (female/male) of mortality rate was higher than one during the years of study and this result shows that mortality rate is higher among the women in comparison with men [Table 1].

Skin cancer is the most common cancer in Iran but the mortality rate derived from that is low and also, there was a low reduction in the mortality rate during the study. In recent years, studies show that incidence rate of skin cancer has increased in the USA whereas the mortality rate due to skin cancer is stable or decreasing.<sup>[7]</sup> This type of cancer has the highest incidence rate among white race and in developed countries such as Australia, New Zealand, and the USA while the mortality rate due to this cancer is higher in developing countries. Causes of the difference can be due to the increase of society's awareness, early diagnosis of diseases, and promoted health services in developed countries.<sup>[8]</sup> Furthermore, Israel and Saudi Arabia have the highest incidence rate among the Middle East countries, respectively.<sup>[9]</sup>

However, the studies indicate that the incidence of skin cancer in men is more than women and sex ratio is 1.6 male to female, which can be resulted in special coating body for women when compared with men, but in this study, the mortality of female to male (sex ratio) was 1.54, which indicates an increase in skin cancer death in women, because the life expectancy is higher in women as compared to men, Because most of the cancer cases occur in the over 60 years old, so the possibility of death from skin cancer is higher in women than men.<sup>[10]</sup>

In conclusion, since skin cancer is the most common skin cancer Iran and has a high mortality,<sup>[11]</sup> to reduce skin cancer mortality and its burden, periodic examinations of the skin, increase community awareness, and less exposed to the sun exposure recommended in Iran.

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**Table 1: Number and mortality rate per hundred thousand people from skin cancer in Iran**

Year of study	Number of deaths			Mortality per hundred thousand			Sex ratio (female/male)
	Male	Female	Total	Male	Female	Total	
2006	111	201	312	0.395	0.693	0.564	1.81
2007	130	163	293	0.498	0.605	0.552	1.25
2008	120	154	274	0.453	0.566	0.51	1.28
2009	100	181	281	0.371	0.658	0.516	1.81
2010	109	179	188	0.4	0.642	0.522	1.64
Total	570	878	1448	-	-	-	1.54

**Conflicts of interest**

There are no conflicts of interest.

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