



Epidemiology and Trends in Breast Cancer Mortality in Iran

Mostafa ENAYATRAD¹, Neda AMOORI², *Hamid SALEHINIYA^{3,4}

1. *Dept. of Epidemiology and Biostatistics, School of Public Health , Shahid Beheshti University of Medical Sciences, Tehran .Iran*
2. *Abadan School of Medical Sciences, Abadan, Iran*
3. *Minimally Invasive Surgery Research Center, Iran University of Medical Sciences , Tehran, Iran*
4. *Dept. of Epidemiology and Biostatistics, School of Public Health, Tebran University of Medical Sciences, Tebran .Iran*

***Corresponding Author:** Email: alesaleh70@yahoo.com

(Received 13 Nov 2014; accepted 19 Dec 2014)

Dear Editor-in-Chief

Breast cancer is a major health problem for women around the world, including our country is as each year more than 502,000 women Because of the risk of this cancer will lose their lives(1). The prevalence of breast cancer is about one third of all cancers in women constitute the second most common cancer after lung cancer and the most common cause of cancer death among women (2) and The incidence of the disease among Iranian women is increasing. With increasing life expectancy and the aging of the population in Iran is expected to increase the incidence of cancer will increase in the coming years(1, 3). The aim of this study was to estimate the epidemiology and trend of mortality from breast cancer in Iranian population during 2006-2010.

In this study, we analyzed data related to the number of deaths caused by breast cancer during 2006 to 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 from various sources including government organizations, cemeteries, hospitals and homes to collect health and the Ministry of Health and Medical Education (4). Grouped according to the International Classification of Causes of Death ICD10 was carried out by the World Health Organization 17, is used.

In this study, data on mortality in breast cancer after excluding the null code, extracting and Picture of trends in mortality from breast cancer in the country were drawn.

The results showed that the mortality rate from breast cancer from 1.97 per one hundred thousand in 2006 increased to 2.45 per one hundred thousand in 2010. In Table 1, the rate of mortality in all years of the study show that breast cancer mortality rate women more than breast men. In women, the breast cancer mortality of 3.93 in 2006 increased to 4.92 per hundred thousand people in 2010. This is while the rate for males in 2006 from 0.07 per hundred thousand people increased to 0.04 in 2010.

The results of this study show that the rate of deaths caused by breast cancer has an increasing trend in Iran. In a study in the year 2003 the death rate due to breast cancer in 29 provinces 2.7 per hundred thousand females has been reported (5), that the results of this study represents the incremental process of death this is cancer in women. According to data published by WHO between 1990 and 2006, deaths from breast cancer in Asian countries, Japan, Korea, Hong Kong and the West had the lowest rate. Among these Asian countries other than Korea's lowest death rate due to the risk of this cancer shows up and the UK are also among the Western countries most of the mortality rate due to the risk of this cancer shows. The

mortality rate due to breast cancer in Asia, Japan and South Korea show an increasing trend, but the trend is declining in Hong Kong (6). The incidence of cancer -related deaths in North America and Northern Europe, South America and Southern Europe, and the highest, average and lowest in Asian and African countries have been(7). The results also show increasing trend similar to the pattern in Asian countries.

In the United States, mortality from breast cancer is decreasing the cause of this cancer is decreasing That's the main reason for the widespread and increasing use of mammography and improved treatment methods have been developed (8). In

Korea, a breast cancer-screening program shows that in 2002 the 5-year survival compared with patients with 90s has risen about 90 percent. It shows the implementation of screening effectiveness in reducing the mortality rate of these patients (9). In the national breast cancer-screening program for early detection of the disease, there is no control. Early detection of breast cancer is key to reducing the burden of cancer is the leading cause of mortality (10).

In conclusion, to reduce breast cancer mortality and its burden, preventive and screening programs for breast cancer especially in young women recommended in Iran.

Table 1: Mortality from breast cancer per hundred thousand people in the study group sex

Year of Study	Mortality per hundred thousand			Crude mortality rate			Sex ratio(M/F)
	Woman	Man	Total	Woman	man	Total	
2006	3.93	0.07	1.97	1107	22	1129	0.01
2007	4.28	0.12	2.17	1121	32	1153	0.02
2008	4.30	0.08	2.16	1141	22	1163	0.01
2009	4.41	0.09	2.22	1187	25	1212	0.02
2010	4.92	0.04	2.45	1343	14	1357	0.01
Total				5899	115	6014	0.01

Acknowledgements

The authors declare that there is no conflict of interests.

References

- Mousavi SM GM, Ramazani R, Davanlou M HN, Seddighi Z. (2009). Cancer incidence and mortality in Iran. *Ann Oncol*, 20:556-63.
- Berek JNEW (2012). *Female Genital Disease*. ed. Williams&Wilkins, Lippincott
- Mehrabani D TS, Heydari ST, Shamsina S, Shokrpour N, Amini M, et al. (2008). Cancer occurrence in *Fars Province, Southern Iran*. *Iran Red Cres Med J*, 10(4):314-22.
- Khosravi A, Aghamohamadi S, Kazemi E, Pour Malek F, Shariati M. *Mortality Profile in Iran (29 Provinces) over the Years 2006 to 2010*. Tehran: Ministry of Health and Medical Education, 2013.
- M N (2004). *Mortality status in 23 Provinces of IRAN, Treat ment and Medical education*. ed. Ministry of Health, Tehran.
- Hoerger TJ ED, Miller JW, Uzunangelov V HI, Segel J, et al. (2011). Estimated effects of the national breast and cervical cancer early detection program on breast cancer mortality. *Am J Prev Med*, 40:397-404.
- JL K (1979). A review of the epidemiology of human breast cancer. *Epidemiol Rev*, 1:74-109.
- Djadi A NM, Mohagheghi MA, Mousavi-Jarrahi A MR, Parkin DM (2005). Cancer occurrence in Iran in 2002, an international perspective. *Asian Pac J Cancer Prev*, 6:359-63.
- Fracheboud J OS, Van Dijck J, Broeders MVA, De Koning H (2004). Decreased rates of advanced breast cancer due to mammography screening in The Netherlands. *Br J Cancer*, 91:861-7.
- Choi Y KY, Park SK, Shin HR, Yoo KY (2006). Age-period-cohort analysis of female Breast Cancer mortality in Korea. *Breast Cancer*, 13:266-71.