

Brief Communication

PATTERN OF MALIGNANT TUMORS IN KERMAN PROVINCE (EXCEPT RAFSANJAN CITY), 1996-1999

Local cancer statistics data are essential for health care providers in order to recognize possible etiologic factors, and to plan for screening programs, preventing measures and treatment facilities. This prospective study followed two other studies in Kerman province,^{1,2} to register new cases of cancer from March 1996 till March 1999. These were diagnosed by histopathology and bone marrow aspiration methods in pathology laboratories in Kerman province (except Rafsanjan), and were encoded by WHO's ICD-O coding system. Enrollment and statistical analysis were performed by EPI-6 program. A total of 2568 new cases of cancer (M: 1431, F: 1135, unknown sex: 2) were found in this period. Table I shows the ten most common cancers in this area during this time.

It must be kept in mind that these numbers do not

in this study versus 720 cases per year for the years 1991-95. Moreover, cancer cases from the city of Rafsanjan were not included in this study while the two previous reports covered that city too. However, it seems that this increase is more apparent than real for several reasons, such as increase in the number of pathology laboratories in the province, development of local diagnostic and therapeutic facilities, and increased awareness of physicians of the importance of pathologic examination of every tissue removed from the human body.

Examination of the present data reveal increased crude relative frequency (CRF) for cancers of the breast, bladder, brain, esophagus and prostate, and decreased CRF of cancers of the stomach and liver. In the pediatric age group (<14 years old) cancers of blood, lymph node and

Table I. Ten most common cancers in Kerman province (except Rafsanjan) registered between March 1996-March 1999.

RO*	Both sexes			Male			Female		
	Organ	Number	CRF%	Organ	Number	CRF%	Organ	Number	CRF%
1	Skin	502	19.5	Skin	281	19.6	Skin	221	19.5
2	Stomach	212	8.3	Stomach	146	10.2	Breast	196	17.3
3	Breast	198	7.7	Bladder	132	9.2	Stomach	66	5.8
4	Blood	170	6.6	Lymph node	97	6.8	Blood	64	5.6
5	Bladder	154	6.0	Blood	84	5.9	Colon/rectum	58	5.1
6	Lymph node	145	5.6	Lung	84	5.9	Thyroid	53	4.7
7	Colon/rectum	123	4.8	Prostate	65	4.5	Lymph node	43	3.8
8	Lung	112	4.4	Colon/rectum	63	4.4	Gallbladder	40	3.5
9	Brain	93	3.6	Brain	49	3.4	Ovary	36	3.2
10	Thyroid	69	2.7	Larynx	46	3.2	Cervix	35	3.1

represent all actual new cases of cancer in the region because it does not include cases that might be discovered by autopsy only and cases of local people diagnosed in other parts of the country.

Comparison of the present data with previous reports of cancer cases from the same region show a dramatic rise in registered cases overall: mean 856 cases per year

brain were the three most common.

Gastric and breast cancers are the most common visceral cancers in males and females, respectively, in this area. Interestingly, the M:F ratio of gastric cancer has fallen from 2.57: 1 in previous reports to 1.8: 1 in this study. The absolute number of breast cancer and its percentage are rising (5.6% in previous reports and >8% in the present study). The rising trend in the number of lung and bladder cancers is significant too, though a major cause of the rise in the number of registered lung cancers is probably increased local diagnostic facilities. Cases of

Correspondence: Ali Zare Mehrjardi, M.D., Dept. of Pathology, Bahonar Hospital, Kerman, 76137, Iran.

*This work has been supported by grant No. 256 from the Research Office of Kerman University of Medical Sciences.

Pattern of Malignant Tumors in Kerman Province

cervical cancer continue to decline, from 7.74% and 4% previously to 3.1%. In women, cancers of the gallbladder and thyroid have significantly increased, but endometrial cancer seems to be relatively rare in this region in comparison with the West.³

A significant number of cases were diagnosed as "metastatic" and "of unknown origin". It is hoped that by better diagnostic modalities and adequate communication between clinicians and pathologists their numbers decline in future studies.

ALI ZARE MEHRJARDI, M.D., AP/CP

From the Dept. of Pathology, Kerman University of Medical Sciences, Kerman, I.R. Iran.

REFERENCES

1. Gupta RK, Tabrizchee H: Pattern of malignant tumors in Kerman Province. *MJIRI* 5 (3): 91-95, 1991.
2. Tabrizchee H, Masoomian M, Ahani F, Zare MS: The pattern of malignant tumors in Kerman province. *MJIRI* 12 (1): 19-23, 1998.
3. Parker SL, Tong T, Bolden S, Wingo PA: Cancer statistics, 1996. *CA Cancer J Clin* 46: 5-28, 1996.