Skin Tumours Diagnosed at Department of Pathology, Sir Salimullah Medical College, Dhaka During Two Years Study Period

*Hossain MD,[1] Islam MN,[2] Kabir E ,[3] Begum S [4]

During the past century, cancer has emerged as the most challenging problems for public health systems in medium and low income countries. With a cancer load of more than one million, Bangladesh is not an exception. In this study we found that squamous cell carcinoma was the most common malignant tumour and lipoma was the most common benign tumour of skin adnexa. The lower income generating group was the more vulnerable group for both benign and malignant tumours. It also showed that both benign and malignant tumours were more common in patients with risk behaviours as well as in patients with no risk behaviours. Tumours of the skin adnexa were the most common benign tumour found in our study

[Journal of Histopathology and Cytopathology, 2018 Jan; 2 (1):47-50]

Key words: Skin, Tumour

Introduction

Cancer burden causes serious health problems both in developed and developing countries.[1] Cancer has devastating effect on individual, family and society of Bangladesh. Cancer is one of the major causes of morbidity and mortality among the non-communicable diseases in our population. Appropriate prevention of cancer deserves urgent attention since the disease is expected to double in the next 20 to 25 years in most of the countries.[1] Cancer in Bangladesh is one of the major killer diseases like many other countries particularly because of ubiquitous exposure to environmental carcinogens, oncogenic viruses and microorganisms, coupled with lack of screening, awareness and poor health seeking behaviors associated with poverty, malnutrition and illiteracy. The magnitude of the problem from cancer is often unrecognized by health and general policy makers alike to other overwhelming and more visible competitive health problems and natural calamities.

According to Bangladesh Bureau of Statistics cancer is the sixth leading cause of death in Bangladesh.[2] The number of people developing cancer is expected to increase in number mainly because of increase in life expectancy and life style factors. Each year more than 200,000 people develop cancer and 150,000 die of the disease. International Agency for Research on Cancer (IARC) has estimated death from cancer in Bangladesh was 7.5 % in 2005 and will be increased up to 13 % in 2030.[3]

1. **Dr. Md. Delwar Hossain, Lecturer, Department of Pathology, Sir Salimullah Medical College, Dhaka. mehruddelwar@gmail.com*
2. *Professor Dr. Md. Nasimul Islam, Professor and Head, Department of Pathology, Sir Salimullah Medical College, Dhaka*
3. *Professor Dr. Enamul Kabir, Professor, Department of Pathology, Sir Salimullah Medical College, Dhaka*
4. *Dr. Shahnaj Begum, Assistant Professor, Department of Pathology, Sir Salimullah Medical College, Dhaka*

**For correspondence*

IARC has projected death from 10 leading cancers in females of Bangladesh (2002) are: (1) mouth and oropharyngeal, (2) cervical, (3) breast, (4) oesophageal, (5) ovarian, (6) Lung, (7) lymphoma, (8) stomach, (9) liver and (10) colorectal cancer.[3]

IARC has projected death from 10 leading cancers in males of Bangladesh (2002) are: (1) mouth and oropharyngeal, (2) lung, (3) oesophagus, (4) lymphoma, (5) stomach, (6) bladder, (7) liver, (8) leukaemia, (9) colorectal and (10) prostate cancer.[3]

During the 2 years study period 2908 histopathological cases and 5187 cytopathological cases were diagnosed at the department of Pathology and 70 haematological malignant tumours were handled at the department of Haematology, Sir Salimullah Medical College (SSMC) and Mitford Hospital, Dhaka.[4] This study was done to find out patterns of skin tumours in these cases.

Methods

This study was partial presentation of a two years tumour registry study done at the Department of Pathology, SSMC, Dhaka from 1 July, 2013 to 30 June, 2015. It was a cross-sectional observational study done on all patients diagnosed as cases of both benign and malignant tumors by cytopathology, histopathology and haematology.

Data collection procedure

A predesigned questionnaire both in Bangla and English was developed according to MacLennan method and software was generated with the technical assistance by the University of Chicago Research Bangladesh by the cooperation of department of Pathology, Bangabandhu Seikh Mujib Medical University (BSMMU), Dhaka. Prior to the commencement of this study, approval was taken from the Ethical Review Committee of SSMC. Each patient was interviewed and relevant information was recorded systematically in a prescribed format. A written consent also attached with the questionnaire and was explained before the patient/patient's guardian. The first part of the questionnaire was designed to record the demographic details of patients. The second part of the questionnaire was to record the pathological diagnosis of tumour with its ICD 0-3 and ICD-10 codes. The information collected was entered into the database by software Microsoft Access 2003 and Visual Basic 6.

Recording of Data

The data were recorded according to database software. All the patients were supplied 1st part of the questionnaire (topography portion) during access to the department for submission of the specimen or for FNAC or other procedures. The data were entered case after case from the filled up questionnaire received from the patients during collection of their reports following a self-made registrar which recorded 10 items for each case likely (1) case serial number, (2) specimen type – histopathological, cytopathological or haematological specimen (3) referred by, (4) yearly serial number i.e., accession number (5) diagnosis, (6) sites of specimen, (7) date of diagnosis and (8) Reported by.

Data were entered into the computer database software accordingly.

Analysis of the data

Statistical analyses of the results were obtained by using Microsoft access and Window based computer software devised with Statistical Packages for Social Sciences (SPSS-15). The information was partially coded according to ICD-10 (International Classification of Diseases version-10) and ICD-3 (International Classification of Diseases – Oncology version 3).

Results

Out of total 767 benign tumours of skin and skin adnexa lipoma was found in highest number in 91.13%, ganglioneuroma in 4.05%, nevus in 0.92%, benign fibrous histiocytoma in 0.65% and all were found more in female patients than males in both age group. On the other hand neurofibroma in 1.69% and benign mesenchymal lesion in 0.65% found more in male than female patients in both age groups (Table I)

Out of 49 malignant tumours of skin squamous cell carcinoma was found in highest number in 55.10% and 99.63% in male patients and none in female of adult age group but found only in one female of paediatric age group which was the only malignant tumour of skin of this age group. Basal cell carcinoma 22.45% and malignant melanoma 6.12% were found more in female than male and deratofibrosarcoma 10.21% and verrucous carcinoma 6.12% were found more in male than female patients only in adult age group (Table II).

Table I: Diagnostic distribution of benign tumours of skin / skin adnexa according to age and sex

Diagnosis	Paediatric		Adult		Total	(%)
	Male	Female	Male	Female		
Lipoma	15	29	302	353	699	91.13
Neurilemoma/Ganglioneuroma	2	4	12	13	31	4.05
Neurofibroma	5	1	5	2	13	1.69
Nevus	0	1	1	5	7	0.92
Epithelioid mesothelioma benign	1	0	3	1	5	0.65
Benign fibrous histiocytoma	1	0	1	3	5	0.65
Fibromatosis	1	0	0	1	2	0.26
Squamous papilloma	1	0	1	0	2	0.26
Pilomatricoma	0	0	1	1	2	0.26
Cylindroma	0	0	0	1	1	0.13
Total	26	35	326	380	767	100.00

Table II: Diagnostic distribution of malignant tumours of skin according to age and sex:

Diagnosis	Paediatric		Adult		Total	(%)
	Male	Female	Male	Female		
Squamous cell carcinoma	0	1	26	0	27	55.10
Basal cell carcinoma	0	0	5	6	11	22.45
Dermatofibrosarcoma	0	0	4	1	5	10.21
Verrucous carcinoma	0	0	2	1	3	6.12
Malignant melanoma	0	0	1	2	3	6.12
Total	0	1	38	10	49	100.00

Discussion

A total of 767 benign and 49 malignant tumours of skin and skin adnexa those were diagnosed in this study found more in females than males both in paediatric and adult age group patients. Highest benign tumour of skin and skin adnexa found in this study was lipoma followed by ganglioneuroma, neurofibroma, nevus, benign mesenchymal lesion, benign fibrous histiocytoma, fibromatosis, sqamous papilloma, pilomatricoma and cylindroma. Squamous cell carcinoma was the highest malignant tumour of skin found in this study only in adult males but in no females of adult age group. Squamous cell carcinoma was found only in one female child of the paediatric age group. No other malignant tumour was found in paediatric age group either in male or female. The next malignant tumour of skin was basal cell carcinoma which was found more in adult females than in adult males.

Both dermatofibrosarcoma and verrucous carcinoma were found more in male than in female. The NICRH also showed that about 60% of the male cancer patients were smokers and among them more than half (53%) had squamous cell carcinoma.[5] Farhad et al. also found lipoma was the top one (35.70%) benign tumour of skin adnexa.[6] Lipoma, ganglioneuroma and nevus in both age group were found more in female than in male. Neurofibroma and benign mesenchymal lesion found in both age groups were more in male than in female.

Most of the patients were from low income generating groups and they were house wives, students, unemployed, garments or industrial workers and hawkers. The patients were mainly illiterate and a few number of the study patients were mostly up to SSC level educated. Most of the study patients were Muslim and a small number were Hindu. Most of the patients hailed from Dhaka city followed by Munshigonj, Shariatpur, Madaripur, Comilla, Manikgonj, Narayangonj, Bhola, Kishoregonj, Patuakhali, Gazipur and Narsingdi and also from other districts of Bangladesh. Out of total 64 districts of Bangladesh patients from only 7 districts were unavailable.

Conclusion

Cancer registries play a major role in providing the data to justify the establishment, implementation and monitoring of a national cancer control programme, therefore, stability in cancer registration is of pivotal importance.

This is the partial study of the two years study done (from July 1st, 2013 to June 30th, 2015) on "Establishment of Pathology Based Tumour Registry at SSMC, Dhaka." The whole study like this one along with other institutions of the country may pave the path of a nationwide population based cancer registry in future.

References

1. Iqbal S. Cancer: A Bangladesh perspective (http://ds.cc.yamaguchi-u.ac.jp/~applied/initiative/18-internship-houkokusyo/kiseitai/Iqbal-Mohd.Shamim.htm)
2. Bangladesh Bureau of Statistics, 2008: Faiz et al, 2008.
3. Wagner G (1991). History of cancer registration. In Jensen OM, Parkin DM, MacLennan R, Muir CS, and R.G. Skeet RG, editors. Cancer Registration: Principles and Methods. IARC Scientific Publications No. 95. Lyon, France. IARC.2002. p.22-28.
4. Delwar et al. Establishment of Pathology Based Tumour Registry at Sir Salimullah Medical College, Dhaka, Bangladesh. December, 2015. P. 19 (Thesis).
5. National Institute of Cancer Research and Hospital (NICRH), Dhaka December, 2009. Zaman MM and BakiMO (eds) (2009). 2005-2007:1-19.
6. Farhad et al. Pathology Based Tumour Registry at BSMMU Shahbagh, Dhaka. 2013. p.57.

.