

Awareness about cancer in Baluchistan

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Research

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Abstract

Background;Propose of presence study was to evaluate the knowledge of Baluchistan's people about cancer. Cancer is a disease which can occur at any time, any age and anywhere in the world. It is caused basically by certain types of disease, infection, mutation and due to genetic abnormalities.

Method; For purpose to check the basic awareness of people of Baluchistan province (Pakistan) a randomized survey was design. Almost 1200 subjects from district Quetta, Killa Abdullah and Zhob were interviewed.

Results; Results showed that people of living in urban areas had more basic awareness about cancer than other rural ones.

Conclusion; It has been concluded that it is because of educational difference the awareness level is also different. As there is more educational development in urban areas as compare to rural areas so people living in rural lack basic awareness about cancer.

Background

Cancer is a disease in which uncontrolled growth of normal cells Occur, (over growth of normal cells occur. Due to certain types of mutation (UV rays, X rays, DNA changes due to change in nucleotide or due to some carcinogenic chemicals) cancer occur. It is not the disease of classical or modern era rather it very ancient one and founded in fossil and Egyptian mummies and other death remains. From the history we found that oldest narratives of cancer are back to 3000 BC in Egypt, even though we didn't find the word cancer in records, the origin of word cancer is attribute to Hippocrates (370–400 BC), first a word from Greek carcino was used after that carcinoma to disturb finger like structure originated from cancer cells. After him Latin word cancer was used by physician Celus (28–50 BC) [1].

Carcinoma was also used for some other types of cancer include (cancer of lungs, colon cancer, cancer of breast cancer and caner of ovaries), Sarcoma (Cancer of bones and cancer of cartilage), Lymphoma (Cancer of lymph nodes) and, Leukemia (cancer of blood). Many other kinds of cancer in addition to these are also present name depending after the body part affected by it. i.e Kidney cancer, Bladder cancer, Skin cancer, Prostate cancer, Bone marrow cancer and many more. There many risk factors Smoking or air pollination in environment give rise to lung cancer, alcohol and a particular type of infection can also cause cancer, for example helicobacter pylori and hepatitis type B and type C [2]. Now a day's life style and diet also be thread and risk factor for cancer development. said that there are more than 300 genes that can cause mutation resulting to genetic cancer and abnormal protein production[3]. Genetic mutation cancer occurs when certain (cancer causing) genes transfer from parents to offspring.

When cell pass through cell division and expose to certain chemicals or rays that damage the DNA or Couse DNA nucleotide deletion, inversion, subtraction, or miss matching occur, resulting the abnormality in DNA and ultimately protein disturbance occur. In cell different properties may accumulate which might

assist in uncontrolled growth of the cell[4]. Most important cancer cells need blood supply for continuous growth and escape the cells from expiry, new blood vessels are formed by tumor cells for this purpose endothelial cells are activated, scientist called this a process angiogenesis[5]. GLOBOCAN estimated that there will be 17.0 million cases in 2018 in all over the world, In Pakistan the numbers are 148.041 people are going to have this disease. According to the institute of health metrics and evaluation (IHME) the 9.6 million people are estimated, which are going to die due to cancer. In Pakistan 100.000 out of 148.041 are going to die.

Depending upon sex, both male and female are equally affected by different types of cancer. In female breast cancer is more common than colorectal and lung cancer and in men lung cancer follows by prostate and colorectal cancer are more common. Lung is more common in male about with the percentage of 11.6% and in female the breast cancer which the percentage of 11.6%. Cancers for all age-standardized rate (containing non-melanoma cancer for skin) both for males and females in combination was 197.9 per 100,000 people in 2018. The higher rate was observed for males (218.6 per 100,000) than females (182.6 per 100,000). Highest cancer rate was observed in Australia for both males and females (468.0 people per 100,000). Age-standardised rate in 12 countries Australia, the US, New Zealand, Ireland, Hungary, Belgium, France, Netherlands, Canada, Denmark, Norway, New Caledonia (France) was at least 320 per 100,000. European, Oceania, North American and Asian countries are in top 12. Australia with 468.0, New Zealand with 438.1, Ireland with 373.7, Hungary 568.1, USA with 352.2, Belgium 345.8, France 344.1, Denmark 340.4, Norway 337.8, Thailand 334.1 with Age-standard rate per 100,000.

Cancer symptoms include Breath problems, Unexplained bleeding from vagina, Very heavy sweats at night times, Rough or harsh voice, Persistent heartburn or indigestion, Ulcer of mouth or tongue that won't heal easily or never heal, Persistent bloating, swallowing difficulty, changes in bowel pattern, i.e. constipation, looser poo or pooing more often, Sore which won't heal, loss of appetite, Unfamiliar changes in breast, poo contain blood, bleeding during pee, complication while peeing, unexplainable loss in weight, occurs of new mole or deviations to a mole, hacking with blood, Persistent cough, indefinable pain or ache in different body parts, Unusual lump observation or swelling of lump nodes anywhere in body. Objective of survey and presence study was to assess the knowledge of people of Baluchistan regarding cancer.

Materials And Methods

A survey study was design to know the basic awareness regarding cancer in the different areas of Baluchistan (District Killa Abdullah area Mazzi Adda, District Zhob and Quetta City). For this purpose, a questionnaire was design with 16 question. Focus of presence survey and study was to appraise the awareness of people of Baluchistan about cancer.

Table 1
Awareness in Baluchistan about Cancer

SR NO	QUESTIONS	YES	NO
1	Do you know about cancer?		
2	Any relative suffered from cancer?		
3	Obesity is a risk factor of cancer?		
4	Smoking is a risk factor of cancer?		
5	Alcohol consumption is risk factor of cancer?		
6	Lung cancer is the most common cancer in the world?		
7	Passive smoking is major risk factor of lung cancer?		
8	10% of all cancer are caused due to abnormal gene transfer from parents?		
9	If timely diagnosed then cancer is curable?		
10	Risk of developing cancer increases with age?		
11	Regular checkup for lethal diseases is very important?		
12	Cancer is 2nd leading cause of death worldwide?		
13	Nutrition have impact on cancer?		
14	Hygiene is related to cancer?		
15	Cancer is treated in specialized hospitals?		
16	Preventions can be adopted to prevent cancer?		

A self-interview survey was done in different above mention areas and 1200 hundred individuals were interviewed which include both male and female from rural and urban areas randomly (in which 400 females was from Urban, 300 from rural, 200 male from urban and 300 from rural areas were take part in interview). Both male and female was above 18 years' age which include married, single, student, government employees, farmers, drivers, house wives, widows, and some others were self-interview. Interview design was random (no special area was focused).

Results

Knowledge of Baluchistan People about cancer (percentage of Positive results)

S.no	Questions	Urban		Rural	
		Male	Female	Male	Female
1	Do you know about cancer?	93.50%	100%	95%	98.66%
2	Any relative suffered from cancer?	46%	28.75%	35.50%	30.66%
3	If timely diagnosed then cancer is curable?	78%	80.50%	67.50%	42%
4	Regular checkup for lethal diseases is very important?	84.50%	83%	65%	61.33%
5	Nutrition have impact on cancer?	68%	64%	60%	38%
6	Hygiene is related to cancer?	60%	67.50%	66.50%	50%
7	Obesity is a risk factor of cancer?	61%	46.66%	43%	31%
8	Smoking is a risk factor of cancer?	74.5%	68.25%	71%	55.33%
9	Alcohol consumption is risk factor of cancer?	91%	85%	82%	77%
10	Lung cancer is the most common cancer in the world?	63%	48.25%	41.66%	18.66%
11	Passive smoking is major risk factor of lung cancer?	88%	43.5	66.25%	37%
12	10% of all cancer are caused due to abnormal gene transfer from parents?	60.75%	44.5%	47.33%	25.33
13	Risk of developing cancer increases with age?	43.25%	29.66%	40.66%	27%
14	Cancer is 2nd leading cause of death worldwide?	84%	48.75%	52%	23.66%
15	Cancer is treated in specialized hospitals?	98%	95%	91%	70%
16	Preventions can be adopted to prevent cancer?	87.25%	69.25%	79%	39.33%

Discussion

Results were generated after survey which clearly showed that most of the time is very little awareness level regarding the cancer in Pakistan. Results was pretty similar to results of Ali and Baig one [6], in which they studied 281 individuals from Agha Khan University, Karachi. However the results of our study are based on the residential area from where they were collected, as in our study data was collect from rural and urban areas of Baluchistan and the results are also based on area which showed different results, and the difference in results are because of difference of educational rate and connection to superior resources regarding awareness. Result shows that people living in urban areas have better literacy rate and mostly people are educated as compare to those living in rural areas. When study was conducted regarding the awareness about breast cancer awareness in Karachi, results of that of that study also concluded that people with high level of education have more awareness about risk factors which are

related to cancer [7], these results are different from a study which were about cancer awareness contacted in West Bengal results of that study shows that there is no major difference regarding knowledge index in areas like which may be either rural or either urban[8].

In Pakistan people think that they have to visit the doctor only when they have any disease which is their general understanding. That's why people think regular health checkups are not important and they consider it unnecessary for them. Many types of cancer can be detected on regular checkups because in overall people lack the concept about the symptoms and severity of cancer at early stages. Typically cancer is diagnosed at those stages when there is no cure of disease available[9].

Cross arrangement on grounds of sex exposure and both sexes think that cancer is more dominant in them. When they were asked about the risk factors associated with cancer urban population mostly recognize defects in Genetics (hereditary), smoking or other Tobacco products, drinking Alcohol, Food, and exposure to sun as risk factors of cancer on other hand people from rural areas were not able to give much information regarding cancer risk factors which shown that people from rural area have less awareness regarding cancer risk factors. Related results were shown by a study which were conducted on British population and results reveal that females and people with better level of education have more awareness about the risk factors [10].

Total six questions were selected out of those 16 for analysis to check the basic awareness. The criteria for both male and female were same and same question was asked from both genders (male from urban and rural, female from urban and rural). Some people were well aware of cancer and types and risk factors and all other information in both genders from both rural and urban, as any relative family member suffered from cancer in any way. Males were more aware about cancer in rural but not as much as males from urban and female urban knew more about cancer than female of rural areas, but some don't know even about cancer in rural areas results of low education and knowledge. There was also no basic health information available to both genders in both rural and urban. If there is basic health information and education to both genders equally cancer cases will be reduced in large number.

Conclusion

At the end of our survey and all analysis we concluded that rural areas lack the basic knowledge about cancer, few people know about cancer and all things related to it but many don't, the urban area know about cancer and its basics more than rural and they have more knowledge about cancer but still they lack more advanced information and knowledge. All these differences were due to lack of education especially rural areas (female education), and results are not good in urban regarding females. More basic knowledge to males and females has to be provided in both urban and rural areas to have better results regarding cancer and its survival.

Declarations

Availability of data and materials

All data was collected from area with approval of people

competing interests

No interest disclose

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References

1. Feinberg AP, Ohlsson R, Henikoff S. The epigenetic progenitor origin of human cancer. *Nat Rev Genet.* 2006;7:21–33.
2. Park S, Bae J, Nam BH, Yoo KY. Aetiology of cancer in Asia. *Asian Pacific J Cancer Prev.* 2008;9:371–80.
3. Wooster R, Rahman N, Marshall M, Futreal PA, Down T, Hubbard T, et al. A census of human cancer genes. *Nat Rev Cancer.* 2004;4:177–83.
4. Cahill DP, Kinzler KW, Vogelstein B, Lengauer C. Genetic instability and darwinian selection in tumours. *Trends Biochem Sci.* 1999;24:57–60.
5. Hornberg JJ, Bruggeman FJ, Westerhoff H V, Lankelma J. Cancer: A Systems Biology disease. *BioSystems.* 2006;83:81–90.
6. Ali TS, Baig S. Evaluation of a cancer awareness campaign: experience with a selected population in Karachi. *Asian Pacific J Cancer Prev Apjcp.* 2006;7:391–5.

7. Sobani Z ul A, Saeed Z, Baloch HN ul A, Majeed A, Chaudry S, Sheikh A, et al. Knowledge attitude and practices among urban women of Karachi, Pakistan, regarding breast cancer. *J Pak Med Assoc.* 2012;62:1259–64.
8. Ray K, Mandal S. Knowledge about cancer in West Bengal - a pilot survey. *Asian Pacific J Cancer Prev Apjcp.* 2004;5:205–12.
9. Bhurgri H, Gowani SA, Itrat A, Samani S, Zuberi A, Siddique MS, et al. Awareness of cancer risk factors among patients and attendants presenting to a Tertiary Care Hospital in Karachi, Pakistan. *J Pak Med Assoc.* 2008;58:584–8.
10. J. W, J. W, N. B, M.J. J. Awareness of risk factors for cancer among British adults. *Public Health.* 2001;115:173–4.