

On Rise of Cancer in Kashmir

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ABSTRACT

Every year there's a marked increase in the number of cancer patients registered in the valley's premiere tertiary care institute, SKIMS, where increasing number of cancer patients, especially from the poor backgrounds, continue to pour in for treatment. Sounding alarm bells, leading oncologists caution that cancer has become the number one killer disease in Kashmir and that there's a need for more, and better, cancer awareness, and latest treatment facilities to ease the suffering of rising cancer patients in the valley. In this brief comment, going beyond the statistics, I put the spotlight on various aspects and reasons of cancer rise in the valley.

Keywords-- Kashmir, Cancer, Food adulteration

I. RISING NUMBERS

Latest data reveals that in SKIMS alone highest numbers of cancer patients have been registered from district Srinagar. Between Jan to June 2016, over 1500 cancer patients from Srinagar alone were registered for treatment in RCC, SKIMS. District Anantnag stood at number two, with over 760 cancer patients registered for the first six months of 2016, followed by Baramulla, with over 720 cancer patients registered with the centre from this district till June 2016. This is for the first time that in just over six months that such increased number of cancer cases have been registered at RCC, SKIMS.

Cancer Society of Kashmir, which has financially benefited over 26000 patients till now, providing them free diagnostic facilities and anti-cancer drugs, till 2011 had just over 200 cancer patients registered for free treatment from all across Kashmir. But since 2011, there's been an exponential rise in the number of cancer patients registered with the society. Majority of these cancer cases come from the lower income group. Since 2011, over 26000 cancer patient visits have been registered with the Cancer Society for treatment.

"We are seeing more cancer cases being diagnosed and we have reached a stage where cancer is

emerging as the number one killer disease in the community," says Prof. Sheikh Aejaz, HoD Medical Oncology at SKIMS. He says the cancer cases have swelled from 3500 in 2007 to about 7000 cancer patients registered in SKIMS alone in 2016. Dr Aejaz says there's a need for Population-Based Cancer Registration to record and have more accurate figures of rise in cancer across the valley. In a recently held meeting at NCDIT, Bangalore, a Population Based Cancer Registry has been approved for SKIMS, which, after some formalities, is supposed to be initiated and will provide an accurate incidence of cancer load in Kashmir.

"Food pipe cancer is very common among people here now and it's very common among poor people," informs Dr Aejaz. "Another worrying trend is the surge in smoking and alcohol consumption among people which also leads to cancer."

Dr Nazir Ahmad Khan, Professor in the Radiation Oncology department of SKIMS, says there's been a rise of 200 cancer cases per year registered with SKIMS alone for treatment in the recent years. "About 80 percent of cancer cases are between the age group of 40 to 70 years," he says, adding that smoking plays a major role in cancer followed by unbalance diet and other factors which have cumulative effect, resulting in cancer after several decades.

Dr Nazir lists food pipe cancer as the number one cancer prevalent among both males and females in the valley followed by stomach, colon and rectum cancer. Lung and chest cancer are also very common, he informs. "Most of the cancer cases come here for treatment at a late stage," he says, "and 60 to 70 percent of cancer patients who come for treatment belong to the lower income group and are very poor."

Dr. M. Maqbool Lone, Professor and Head of Radiation Oncology, SKIMS says in the past the pattern of cancer cases in Kashmir was different from other countries. "But now for the past 3 to 4 years we are observing the same type of cancers as are prevalent in the rest of the states because of changes in dietary habits and overall sedentary lifestyle of people in the valley," says

Dr Lone, adding that in males lung cancer has become the number one cancer in Kashmir and in females breast cancer is the number one cancer.

In 2014, the total number of new cancer patients registered with RCC, SKIMS stood at 3687. In 2015, 4001 new cancer patients were registered in RCC, while in 2016 the number of new cancer patients registered up to December shot up to 4336. Approximately 15 new cases get registered everyday in RCC. Dr Lone says roughly there's a 10 to 12 percent increase in cancer cases registered per year in RCC, SKIMS. "It means our lifestyle is becoming westernized and other factors like sedentary lifestyle, late marriages and late child birth among females has made them more prone to the disease," he adds.

Dr Lone points at another worrying and very common trend of increased smoking and alcohol consumption in the valley, which is one of the major causes of lung and liver cancer.

II. LIMITED TREATMENT FACILITIES

The Regional Cancer Center (RCC) in SKIMS is the only dedicated Cancer treatment facility in Kashmir that caters to increasing number of cancer patients from across the valley. The rush at RCC facility for diagnosis, management and treatment of cancer patients forces many patients to go for treatment in the private sector and travel outside the state, which is costly and unaffordable for hundreds of poor patients.

"The institute lacks mammography machines required for treating breast cancer," said one attendant of a cancer patient in RCC, wishing not to be named. "There was one machine previously but after it went defunct, it was never repaired."

Given the rush of patients at RCC, many cancer patients get late dates for MRIs, after two to three months, which further delays their treatment, forcing many cancer patients to move out and seek costly treatment in private hospitals outside the state. "Cancer patients in SKIMS also have to pay for various tests but outside the state cancer patients in government hospitals are not charged for any tests," the attendant said. Ideally, he adds, there should have been a separate counter for registration and fee deposit of cancer patients in SKIMS, but that is not the case as the cancer patients here have to wait in long queues among other patients for registration and completion of other formalities.

III. RISING COLORECTAL CANCER

Colorectal Cancer is also on the rise in Kashmir from the last one decade. "The higher incidence can be explained on basis of consumption of non vegetarian diet especially red meat and lack of fiber and fruit in our diet," says Dr Fazl Q Parry, Professor Colorectal Division,

SKIMS. He says certain families have a propensity to catch this disease. "In present day scenario colorectal cancer is considered to be a treatable disease if it's diagnosed in early stages."

Dr Fazl says the disease escapes our attention because of certain myths and apprehensions associated with it. "The commonest myth that bleeding per rectum is associated with "Garmi" in local language or with piles and most of the times the social customs will teach you not to reveal or report it to anybody especially in female folk," he says, adding that this is where the patient misses the train. "Bleeding per rectum should always be reported to a surgeon, gastroenterologist or a colorectal specialist; even though most of the times it may be from the benign diseases but it is always better to get yourself examined and evaluated and shun all social inhibitions."

Dr Fazl says there is a general apprehension among people that in case they're diagnosed with rectal cancer; they'll always end up with a permanent stoma (an opening made on abdominal wall for the evacuation of stools). "This is totally wrong," he points out, "nowadays with the help of supportive treatments and technological gadgets, we save more than 95 percent of patients from a permanent stoma and make them to live a normal life and they can ease out through the normal passage."

Dr Fazl wants cancer patients to "trust surgeons in Kashmir" who, he says, are "exposed to a higher volume of these cancers and have better expertise to deal with these problems" instead of relying on surgeons based outside the valley. He also wants people to improve their dietary habits. "Decrease your red meat intake and increase vegetable and fruit intake and report to your doctor in case of any doubt and get yourself screened after the age of 40 years even though no age is exempt from cancer," he advises.

IV. PESTICIDES AND BRAIN CANCER

In 2010, a study was carried out by the doctors of Department of Neurosurgery in SKIMS to determine the relationship between the patients of primary malignant brain tumors and their occupation on the 'increasing trend in the incidence of primary malignant brain tumors in orchard farmers and their families in Kashmir'. The study revealed that "90.04% (389 out of 432) patients were orchard farm workers, orchard residents and orchard playing children exposed to the high levels of multiple types of neurotoxic and carcinogenic chemicals for more than 10 years."

The study concluded that "all orchard-related 389 patients had high-grade tumors as compared to the non-pesticide tumors," adding that the "familial gliomas have shown an emerging trend in the orchard residents of valley of Kashmir."

Dr. Rouf Asmi, professor Department of Neurology, SKIMS, says 90 percent of brain tumor cases are reported from rural areas where people are exposed to

pesticide use in orchards. “When people use these pesticides in their orchards in rural areas, they normally don’t use proper screening and masks which are required to avoid their direct exposure,” he says, adding that these pesticides and insecticides are indirectly linked to brain tumor.

Dr Rouf says brain tumour cases are also rising in the valley. “A lot of young people in their early 20s and 30s are being diagnosed with brain tumor here,” he says. “We have one patient being treated here who is an 18-year-old boy diagnosed with brain tumor and his chances of survival are bleak,” he says. “It is devastating for his family.”

He says use of pesticides in rural areas, food adulteration, increased number of mobile towers in residential areas, which emit harmful radiations, and military arms and ammunition depots spread across the valley, can also be responsible for rising brain tumor cases.

V. FOOD ADULTERATION AND CANCER

In a series of front page reports, Greater Kashmir had reported in May, 2016 that markets in Kashmir are flooded with ‘killer foods’ (junk food, snacks, cold drinks etc) that are added with dangerous additives and adulterants. Also the milk and milk products contain chemicals such as detergents, the trend that experts warn is “creating a health catastrophe.”

Contaminated and adulterated cooking oils have also flooded the Valley markets in absence of any quality checking mechanism in place. According to the informed source quoted in the report, the cooking oils used are not being tested even for basic things such as concentration, viscosity and iodine content and still allowed for public consumption.

The report added that no tests are conducted to check the dangerous adulterations of rapeseed oil, BHA (Beta Hydroxy Acid) and BHT (Butylated hydroxytoluene) “beyond safe limits and excessive solvent residues”.

These chemicals, when consumed with food, lead to various complications, the most lethal being cancer. “Chemical carcinogens take time to show their carcinogenic kinetics, but once they are assimilated in body beyond safer limits, then they cannot be eliminated by liver,” explains Sheikh Umar Ahmad, a research scholar who is working on cancer biology at the CSIR Indian Institute of Integrative Medicine (Jammu). “It then causes various types of cancer.”

Chemicals adulterants found in milk have also proven to be carcinogenic in nature. Some even have mutagenic property i.e. it can change gene structure or expression, eventually leading to cancer. The FSO (Food Safety Organisation) has also been turning a blind eye to the reuse of oil by roadside vendors for frying foods. Reuse of frying oils produces BaP (benzo[a]pyrene), a

chemical linked to various cancers. A 2001 National Cancer Institute, USA study found levels of benzo[a]pyrene to be significantly higher in foods that were cooked on high heat.

As per FSO state report released some years ago, 55 percent milk samples tested in Srinagar were found to have adulterations. There are no facilities to test for synthetic chemicals such as shampoos, pesticides and heavy metals, according to a concerned official quoted in the report. Experts said these heavy metals lead to various birth-related defects in addition to their long term effects of cancer. Adulterants such as “bicarbonates, caustic and flour” apart from water, are very often suspected in milk—both loose and packaged. “These chemicals synergistically induce various genomic changes that ultimately lead to development of cancer,” says Umar.

A survey conducted by the FSSAI (Food Safety and Standards Authority of India) on January 2, 2012 revealed that 80 per cent of milk sold in Jammu and Kashmir contained adulterants.

“Food adulteration does not show immediate effects,” explains Umar, adding that it takes time till it induces various genetic changes in the genomic profile of individual. “When anybody takes food that is laced with chemical agents that have been proven to have role in cancer development, it gets intercalated within the macromolecules of body like DNA, RNA or either proteins, and once the normal machinery is halted, the person feels symptoms of abnormal physiology,” he explains. “These mutagens damage the very fabric of natural setup within cells and put the very existence of person in danger.”

Dr Shaiq Ahmad Ganie, Assistant Professor at the Department of Food Technology in Islamic University of Science and Technology (IUST) says in Kashmir generally caustic soda (detergent), which is a harmful agent, is inserted in the milk at the time of skimming. “In foreign countries this chemical is used for cleaning machines,” he points out, adding that the use of detergents in milk is a common practice in Kashmir and the consumption of contaminated milk over a period of time can cause stomach cancer.

Tariq Ahmad Saffuri from the Department of Food Technology, IUST, echoes Ganie’s concern, adding that even daily household food items like oil, chili powder, turmeric powder etc., are adulterated with yellow aniline dyes and artificial colors – all of them carcinogenic. “Sweets, juices and jams are also added with yellow dye which is highly toxic and carcinogenic,” he says. “The menace of adulteration can be controlled to a larger extent by adopting a multipronged strategy involving all stakeholders, including the FSO, the common man and the concerned regulating agencies from the state government.”

Key Points

- Presents discussion on scientific lines on last decadal doubling of cancer cases in Kashmir

- Presents that occupational lifestyle changes are the main contributing factors in rise of cancers in Kashmir
- Presents some case studies of cancer patients in Kashmir

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Conflicts of Interest

None

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