

Cancer: Risk Aspects and Measures of Their Control

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Abstract: Over the foregoing few decades we recurrently heard the word cancer. It is a foremost leaven of death globally. After a century of rapid approach, cancer research has gone through a rich and complex body of knowledge revealing cancer to be diseases involving dynamic changes in the cells. Although there are many types of cancers but the root of all cancers is the abnormal growth of cells which led the tissues out of control and when left untreated cause ailment. Cancer is to large extent escapable and can be interrupted, sheltered or healed. So, one should know the various risk factors which put life on the track of cancer. This paper describes the conversion of normal cell to cancerous cell with the main focus on the risk aspects like progressive smoking, physical inactivity, obese or overweight etc. and the measures of control such as prevention, early detection, and palliative care.

Keywords: Cancer, cancerous cell, physical motion, pudgy, early detection, palliative care.

I. Introduction

Cancer can reach nearly everywhere in the human body, which consists of million trillion cells. In actual practice, human cells expand and separate to produce new tissues. The process continues; the cells become old, damage, die slowly and new tissues start taking place of old dead tissues. If this process breaks down the growth become abnormal; the new and dead tissues start residing in the same body.

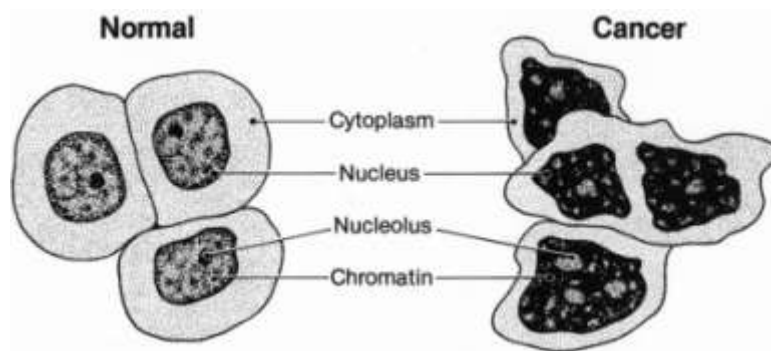


Fig 1.1 Difference between Normal and Cancerous cell Tissues

The spare cells continues to divide resulting in the formation of tumours also called as Cancerous cell. Cancerous cell can reach anywhere in the body by approaching neighbour cells. Since normal tissues changes to cancerous tissues residing in the body, the cells goes over the unexpected changes and these unexpected changes are sound as Hyperplasia and Dysplasia.



Fig 1.2 Growth of human body cells from Normal tissues to Cancerous cell

In the case of hyperplasia, the atomic view of the increased number of cells or tissues at particular area come out to be very normal whereas it is vice versa in dysplasia which is not considered as a Cancer.

II. Risk Aspects of Cancer

About 40% of the cancer are preventable [1], which means cancer avoidance should be a crucial fundamental of all extensive cancer supervision plan. Cancer prevention should be considered in the control of other prevention programme because important cancer risk aspects - tobacco use, unhealthy or improper diet, physical inactivity and obesity or pudgy are risk for other prolonged diseases.

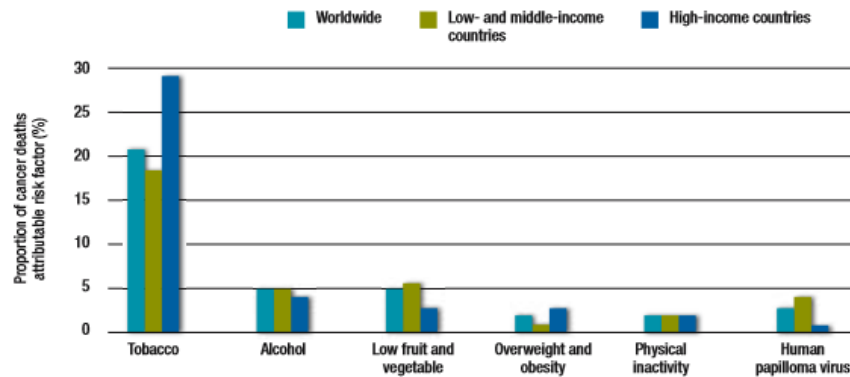


Fig 1.3 Contribution of selected risk factors to all the Cancer Deaths (Worldwide) [1]

Tobacco buttoned up its various forms of exposure, become the main curse of cancer deaths around the world among men and incrementing even among women. Configuration of disclosure consists of progressive smoking, passive or second hand smoking, and tobacco. Tobacco is the root cause of cancer types such as lung, oral, oesophageal, stomach and cervical. The total deaths registered in 2014 by consuming tobacco was projected 5.4 million people, which includes approximate 1.5 million of deaths was due to cancer [1]. Furthermore, at least 28 chemicals are found in smokeless tobacco which is the major cause of cancer [3]. The utmost danger chemicals in tobacco are nitrosamines, which is made during the processing namely rising, curing, fermenting, and aging of tobacco or weed.

Physical inactivity, improper diet, pudgy or being obese is another big issue of cancer. These parameters are affected by gender norms. Because all these factors are interconnected at their own level to each other. The roughly calculation of the presence of each of the above factor is challenging. The main reason of weight related issues arise due to less involvement in physical activity as a result pudgy or being overweight come up with the cancer of oesophagus, breast in postmenopausal women or kidney [WHO, 2003].

Table 1.1 Risk factor involvement in multi-sector action *

Sector	Tobacco	Physical Inactivity	Harmful use of alcohol	Unhealthy diet
Agriculture	✓		✓	✓
Education	✓	✓	✓	✓
Communication	✓	✓	✓	✓
Employment	✓	✓	✓	✓
Energy		✓	✓	✓
Environment	✓	✓	✓	✓

*Adapted from A/67/373 (available at <http://www.who.int/nmh/events/2012/20121128.pdf>)

Alcohol devour, is directly proportional to the cancer that is with the increase amount of alcohol consumed the risk of cancer also increase. The main cancer concerned with the alcohol devour is oral cavity, liver, pharynx and breast cancer. In addition to the above, the danger of cancer extend if the individual is a heavy smoker.

Human Papilloma Virus (HPV) is the world's most common sexually discharged communicable diseases of reproductive tract, influencing an estimate of 660 million people every year. It can also be the cause of oral cavity and oropharynx.

III. Measures of Cancer Control

The first move towards the cancer prevention traits is perform a standardized reckoning of cancer risk aspects at the level of country or any particular region. The objectives of the estimation is to get the good quality of data which is further needed to fix preference for the evidence based distribution of the goods.

Nearly all vital problems in cancer hindrance area unit joined to the explanation of the sickness ‘cancer’, which may be summarized as shown in figure one.4. Here, purpose A indicates the biological onset of the sickness and therefore thebegin of the pre-clinical part. This could be the purpose at that associate irreversible set of events (e.g., factor mutation) takes place. As a results of progression of the sickness, symptoms and/or signs seem that bring the patient to medical attention and diagnosing at purpose C. this is often the top of the pre-clinical part, that is that the amount from A to C, and therefore the starting of the clinical part of the explanation. The sickness could then make cure (D1), to permanent ill health and incapacity (D2) or to death (D3). The time from initial symptoms and/or signs to cure, permanent ill health or death could mirror the results of treatments given, additionally because the underlying characteristics of the untreated sickness

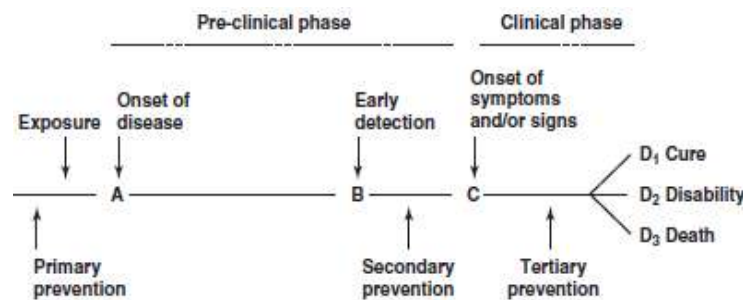


Fig 1.4 Disease ‘Cancer’ levels

The aim of bar is to prevent this progression.

There are numerous levels of prevention:

- * Primary bar is bar of sickness by reducing exposure of people to risk factors or by increasing their resistance to them, and so avoiding the prevalence of event A.
- * Secondary bar (applied throughout the pre-clinical phase) is that the early detection and treatment of sickness. Screening activities are a vital element of secondary bar purpose B indicates the purpose in time at that the sickness is initial detectable by Associate in Nursing acceptable screening take a look at. As an example, it would talk to the time at that a cancer mass reaches the minimum size that may be seen by X-ray examination. Thus, the space from purpose B to C represents the ‘detectable pre-clinical phase’. The situation of purpose B varies markedly from one individual to a different, and conjointly depends on the screening technique used.
- * Tertiary bar (appropriate within the clinical phase) is that the use of treatment and rehabilitation programmes to boost the end result of sickness among affected people

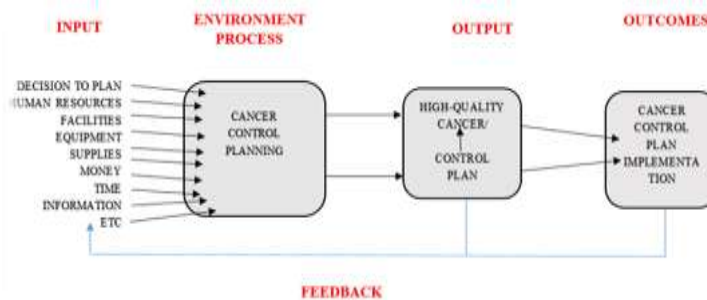


Fig 1.5 Program for cancer control measure

IV. Summary

Non-communicable diseases together with cancer area unit rising as vital public health issues in Republic of India. The key risk factors for these diseases area unit tobacco, dietary habits, inadequate physical activity, alcohol consumption and infections attributable to viruses. The best impact to scale back the burden of cancer comes from primary bar.

Extensive persuasive health education is required to be directed to control/reduce the tobacco habit. Education about nutrition, having safer sexattention to private and reproductive organ hygiene has to be foreign for increasing public awareness. Prophylactic vaccinations against HPV infection and serum hepatitis virus area

unit helpful methods for the bar of cancerous lesions of cervix and within the management of cancer of the liver. Further, screening for cervix, oral and breast cancers may have a major impact on reducing mortality from cancer.

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