

Cancer : The Asexual Reproduction Hypothesis.

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Cancer seems to be occurring due to the collection of random mutation in the organism. The biological sense of cancer hypothesis states that cancer development is not nonsense, but a biological sense. It observes that tumour cell would be the only one able to respond to the demand to proliferate in the organ of origin. Throughout animal kingdom cancer seems to arise only in injured organ and tissue that display lost or diminished regenerative ability. Raul A Ruggiero and Oscar D Bustuoabad [1] proposed that cancer development is dependent on a reparative signal originating in the particular environment of injured tissue with diminished or exhausted reparative ability.

The hypothesis of Cancer weakening and origin states that cancer develops when cell reproduction becomes defective because of the active involvement of viral gene, in a process similar to genetic engineering. And cancer cells are amalgamations of genetically modified organisms. John Cheung Yuen Chan [2] thinks that there are two main groups of cancers. One group arising by the genetic engineering of viral genetic relic named as Genetically Modified Organism from Viral gene (GMOV) and another group arise by engineering of the genes of ancient eukaryotes. And it is named as Genetically Modified Organism from ancient Eukaryotic genes (GMOE).

Both hypotheses do not explain the links of cancer to the reproductive activity of humans. In fact they are partly correct. Cancer is often seen when sexual reproduction has reduced or absent. It is true that there is demand for proliferation and growth from the body. Hence it is

biological sense. But the demand is for reproduction or development of a new organism since the organism is severally damaged and almost stopped reproduction. It is also true that in cancer a genetic engineering process is going on resulting in mutation. And this is with an intention of development of an alternative reproductive process as we see the development of drug resistance in bacteria by mutation. Hence mutation is occurring with the good intention of restoring reproduction.

Hence, I believe that cancer is an atavistic manifestation of asexual reproduction in humans. [3]

Cancer is often described as a growth disorder. The disorder is in fact in the cell division process. The purpose of growth in an organism could be only for repair and increase in size or number. It cannot be a disease to kill the organism. Hence there is something basically wrong in the conceptualisation of cancer as a killer disease affecting humans. In another words, the killer character of cancer is an accidental development in creating a reproductive process. The growth process continues indefinitely, because what is intended by growth could not be achieved. As a result death occurs.

In nature reproduction or procreation is a very important function of all living organisms. There are male organisms living just for supplying the genetic material for the female. They take all sorts of risks including life risk to achieve it. There is even female sexual cannibalism to enhance reproduction among spiders and praying mantis. Females take big risk to protect young ones and they get extended life to protect them. We have seen that nature is doing everything possible to reproduce and sustain the next generation. This is also evident in bacteria resisting antibiotics by mutation. There seems to be more than nineteen methods adopted by microorganisms for multiplying in difficult situations! All these show that when sexual reproduction is insufficient or absent nature shall try other methods for reproduction. Cancer was suspected to be an aborted attempt for binary fission (asexual reproduction) in humans, when sexual

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reproduction is insufficient or absent. [4] Cancer could be an ineffective partially developed vestigial process in humans for reproduction.

We have certain evidences to substantiate or prove the hypothesis.

Biological & Circumstantial Evidence

- 1) In rose plants when we cut and remove the overhanging branches we get good number of flowers in young branches. This is because when we remove the old branches, we are blocking the attempts for asexual reproduction by the plant. Hence the plant attempts vigorously for sexual reproduction which fails due to genetic deficiencies. Similarly the bananas we eat are products of unsuccessful sexual reproduction. To get more and better fruits the agriculturists destroy the bulbs intended for asexual reproduction. It shows that when there is deficiency of one method of reproduction the other method gets reactivated.
- 2) The most important non modifiable risk factor for cancer is age. Majority of cancers occur in old age when the person is incapable of sexual reproduction or reproduction efforts are nil or very less.
- 3) Many modifiable risk factors for cancer are in fact factors or agents which can produce impotence and or sterility. Examples are: Tobacco, alcohol, obesity, pollution, radiation, undescended testes etc. Smoking tobacco produces cancer of lungs but smoking marijuana, an aphrodisiac does not produce cancer. Breast cancer is common among women who have not breast fed an infant. Biologically, it means sterility or still births. Fertility rate is progressively reducing in the world due to various reasons and cancer rate is progressively increasing in the world. Humans have regulated and restricted reproduction by licencing. Any person violating licencing rules is punished severely by the state, society and religion. As sex and fertility rate reduce cancer rate increases in an attempt to maintain sufficient reproduction.
- 4) More than fifty percentage of cancers are of reproductive organs especially female reproductive organs in spite of removing many healthy female reproductive organs for prevention of cancer. Embryological view is that male body is only a modified female body.
- 5) Prostate cancer is more common in old age men who started sex life late and who are less active in sexual activity. Low sperm quality, low ejaculation

frequency, poor reproductive history, low number of offspring is linked to prostate cancer [5]. Since often testes are removed for treating cancer of prostate there is a misconception that testosterone is responsible for prostate cancer. Testosterone is not the cause for prostatic cancer because testosterone levels are high in young individuals while prostate cancer is very common in old age.

In plants, the asexual reproduction occurs from the old branches and sexual reproduction from young tender branches. Both sexual and asexual reproductions start from the nodes of the branch. The most common site for cancer in humans is the reproductive organs of elderly persons.

Evolutionary Evidence

- 1) Errors in sexual reproduction are common and when the error is very severe miscarriage occurs. Still lot of people are born with lot of congenital anomalies. Many can have animal characters like appendix, accessory mammary glands, sickle cell anaemia, colour blindness etc. Impotence, sterility, miscarriage, Vesicular mole, still birth, infant and maternal mortalities are in fact errors of sexual reproduction. Atavistic characters in humans are not rare and an evolutionary through back to amoebic reproduction is a possibility.
- 2) There is similarity between Medulloblastoma and infant brain as evidenced by the fact that Zika virus eat infant brain as well as Medulloblastoma. But do not eat the adult brain.

Pathological & Embryonic Evidence

- 1) The cancer shows many similarities to sexual reproduction and pregnancy. *"It becomes apparent that the development of early embryo shares many similarities with cancer development in terms of both biological behaviour and molecular basis"* [6]. There is angiogenesis like a pregnant uterus. The nucleus of malignant cell is large as the sperm. The cancer cells have independent motility as sperm and ova and they migrate. Besides this the cells invade like the placenta on the uterine walls. The immune system does not attack the cancer cell since they have got all the protection like the embryo in the uterus or outside. Even accidentally transplanted cancer tissues to unrelated patients grow undisturbed by the immune system. The amniotic membrane transplanted for many eye diseases is not attacked by immune system. The immune watch dog shall neither bark nor bite the cancer because it is an under developed reproductive

process of the organism.

- 2) The large cancer cell can eat a small one (cannibalism) as the amoeba [7]. Cannibalism is more pronounced in highly malignant tumours. Swallowing another cell or organism is a character of amoeba. This character is shown by the cancer cells.
- 3) Cancer cell is often compared to trophoblast by pathologist, John Beard. Cancer is also described as a 'somatic cell pregnancy' by Lloyd J. Old, because the primordial programmes are reactivated in cancer [8].

Genetic Evidence

The p53 gene responsible for cancer suppression is also responsible for correction of sexual reproduction error like spina bifida. The cancer protection gene is making apoptosis of the cancer cells because there is an error and mistake in the asexual reproduction process. It has been observed that cancer fighting gene is preventing birth defects [9]. Abnormal Oogenesis is induced by p53 deficiency. The study revealed pivotal role of p53 in restricting abnormal gametogenesis [10].

The hallmarks of cancer are sustaining proliferative signalling, evading growth suppression, resisting cell death, enabling replicative immortality, inducing angiogenesis, activating invasion and metastasis reprogramming of energy metabolism and evading immune destruction [11]. These hallmarks are one way or other connected with reproductive process.

Conclusion

Cancer is an aborted asexual reproduction process in humans and with correction humans can have a second type of reproduction and eliminate the sufferings due to cancer. Instead of genetic manipulations of immune system to attack cancer, a genetic manipulation has to be done to correct the defective reproductive process to save humans from extinction.

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