

View Points

Malignant tumor: a view from links of life information control

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ABSTRACT New thinking of the cognition of malignant tumor is essential to the new breakthrough of anticancer treatment. There are lots of question about malignant tumor requesting to be made clear, but undoubtedly, the infinite generation of the malignant tumor is the first and critical reason to know malignant tumor clearly. If we can solve this puzzle, we will solve some problems with the greatest ease, and it is beneficial for us to recognize and cure the malignant tumor.

KeyWords: Malignant tumor; Life information control

The harm of malignant tumor to human is intensifying increasingly. Our desire and consciousness about the responsibility of defeating the malignant tumor is becoming increasingly urgent and we have been paying great endeavour on it for a long time. But the effect of our endeavour is so little and the advancement is so slow-moving that some relevant problems even the cognition of elemental problems advancement are indefinite to us, for instance the essence and definition of the malignant tumor. Therefore, new thinking of the cognition of malignant tumor is essential to the new breakthrough of anticancer treatment. There are lots of question about malignant tumor requesting to be made clear, but undoubtedly, the infinite generation of the malignant tumor is the first and critical reason to know malignant tumor clearly. If we can solve this puzzle, we will solve some problems with the greatest ease, and it is beneficial for us to recognize and cure the malignant tumor.

We realize that mankind's vital movement is self-information via programmed control, as in the concept of genetics and ECIWO (embryo containing the information of the whole organism). Moreover, this kind of information is inherent of the life autos, and composed of the self-control system i.e. the self-control system of the organism by itself. Every cell is a elemental life-individual and of course, it has self-control information system. Vital movement and

the whole vital process are controlled via this system. Therefore all the life phenomena can be seen as the loci of the self-control information system and it is personalization of the function of the self-control information system. Alteration in this system will cause change of vital movement and life form. Vice versa, each alteration in vital movement is the result of the alteration of the system. Therefore the change of vital movement should incriminate its alteration of the self-control system in the basis, that is to say, all vital movement is the result of the abnormal self-control information. If we want to effect the vital movement, the fundamental path is to effect some related information of the self-control information system.

The phenomenon that the malignant tumor can generate unboundedly, is undoubtedly an alteration and abnormality of the vital movement and is the result of abnormality of the cell's self-control information system. Incorporating with the clinical feature of the malignant tumor, we can know easily that the source of the malignant tumor is the derangement of some part of the self-control system and then the derangement change into new self-control program unlike others: the information of maturity-control and function-control is lost; the information of generation-control and development-control connect with each other and circulate infinitely. Therefore, the conditioned unbounded generation of the malignant tumor emerges.

The cell's self-control system must have inherited and definite program. From the birth, the life act regularly until its completion under the control of the program, the life procedure is composition part of the vital movement. In order to describe and understand easily, we will express the self-control information of the life procedure in the form of "the figure of the link of the life procedure self-control information"

The link of self-control is composed of different portions, each portion extends with each other until the end. Every portion is composed of several informational segments, the segment is the fundamental element of the information link, and the intersegment

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linkage originally connect with each segment. Each self-control information segment is in charge of controlling one part of the life procedure, e.g. generation portion (Axy), development portion (Bxy), maturity portion (Cxy), and function (Dxy). Every portion from the beginning to the end is a procedure from quantitative alternation to qualitative alteration, and it jump through qualitative alteration, then enter into the next part of the life procedure and the activity is controlled by the next portion of the self-control information link. And so it dose successively until the end of the life procedure.

It is possible that there are instable intersegment s in all kind of cell's link of life procedure self-control information (Fig.2). But only the instable intersegment linkage appears in Bxy, and breaks in the condition of excitation, new link of self-control information composed of portion of Axy+part of Bxy emerges; part of Bxy+Cxy+Dxy is taken down and discarded ,new life procedure appears ,new cells of immature non-normal-functioning infinite generational in the living organism appear ,the malignant tumor emerges. (Fig.3, 4)

Any one of the lots of intersegment linkages comprising of Bxy portion has opportunity becoming instable linkage. But the location it appears and the stable program possibly determine the development and differentiation degree of the malignant tumor. The closer the instable linkage part from the beginning of the Bxy portion, the smaller the new self-control information link ring forming by breakage is ,the shorter is the multiplication cycle of the malignant tumor , the faster the growth rate of the malignant tumor ,the higher is the malignancy degree. On the contrary, the larger the ring is, the higher is the differentiation, the longer is the revolution ,the slower is the growth, the lower is the differentiation degree. For the new self-control information link ring have no information program of maturity portion and function portion, there is no corresponding vital process. Therefore, the malignant tumor cells are immature, and have no function of normal cells, infinitely generating in the living body. (Fig.4)

The reason of the appearance of instable intersegment linkages is diverse. The quantity of cells of any tissue is extremely great, and every cell has itself life procedure self-control information link. In the production procedure of hundreds of millions cells, it is inevitable that some cells are abnormally carrying instable linkage in the Bxy portion of the link. The instable intersegment linkages have difference in the location, instability degree ,and of course the appearance probability ,the factors for example, characteristic of territory , environmental agent, genetic factor ,pregnancy process , physics and chemical factor ,individual life history cause difference. Cells or tissues in every body have the chance and possibility that instable intersegment linkages exist.. It ought to say that the difference among the human being is tiny, but the difference of significance instability of the linkage and relevant stimulus has important significance.

Whether the malignant tumor occurs or not depends on the instable-degree of Bxy as well as "quality" and "dosage" of relevant

stimulus. When the same stimulus affect on the instable linkage of different instability-degree, linkage of the poorest instable-degree will break at first; when the different degree but the same relevant stimulus affect on the link of the same instable-degree instable linkage, linkage receiving heaviest stimulus will break at first. When there are two or more than two instable linkages break, malignant tumor of ambi-focus or multi-focus will emerge.

All the factors making the instable linkage breakage are carcinogenic factors. The effect of same carcinogenic factor affecting on instable linkages of cells and different bodies is different., (the fundamental phenomenon is that the instable-degree of instable linkages are different in different living bodies) e.g. leukemia resulted from radioactive ray, and of animals induced in lab.

Once normal cells change into malignant tumor cells, some built-in characters would miss and some other characters would appear, the built-in physiologic function of normal cells would no longer exist, and rapidly unconditional generation, fairly powerful aversion capability and formidable disservice on human would replace the built-in physiologic function of normal cells. However, if the malignant tumor intend to show its characters, material foundation is indispensable. Firstly, the material exchange that unconditional generation demands is extremely vigorous ,and normal tissue can't match with it. Secondly ,malignant tumor cells can exist and generate in the tissues out of primarily focus ,it means that these cells necessarily not only have the capability of existence and generation but also the capability of the tissue conceiving it, not re-

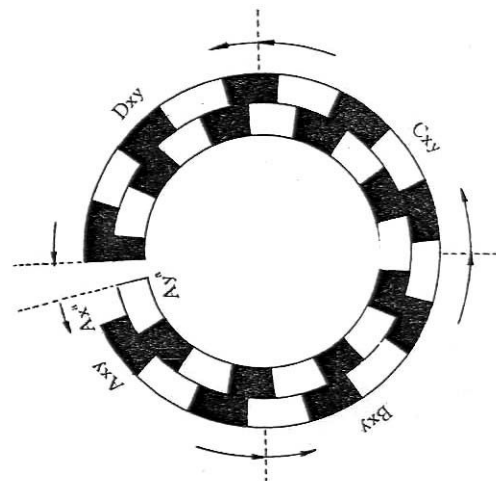


Fig.1 Block diagram of self-control information link of normal vital process. 1. This link controls the vital process only, including generation portion Axy, development portion Bxy, maturity portion Cxy, function portion Dxy, every portion is composed of information segment, and every segment connect with each other by linkage; 2. In the link of self-control information, from the Axy portion, every portion produces a marked effect one by one, showing the advancement procedure of life. When coming to Dxy portion, the link become dynamic balance and regularly produces normal function, e.g. blood corpuscle and pancreas cells; 3. Any self-control information has its latitude and energy-limit.

jecting it or unable to reject it. To implement the above characters, it is clear that the malignant tumor cell envelope possess new characters, for the cell envelope is the foundation of material exchange. These new characters is one of the pacing factor of malignant tumor cells existence, and it is special ascendancy of malignant tu-

mor possession .if we can recognize it, change it and make use of it for anticancer treatment ,and it will become fundamentally mortal weakness of malignant tumor.

As for the existence form ,transmission modality ,monitoring diplomacy and so on, we can't touch upon. This work will be done sooner or later, and the day we achieving it will be a new epoch of mankind recognizing selves and the life domain. We will discuss this articles in the aspect of the actual value of the viewpoint of the self-control link below.

On account of contemporary science, we have known that some diseases are concerned with chromosomal abnormality ,for example, chromosome breakage ,translocation and inversion, which are frequent in malignant tumor. It is worth to say that chromosome is gene bearer and gene is one of existence forms of self-control link. Even though the chromosome is remaining virgin, the self-control link would also break. Chromosomal abnormality is possibly only one way of causing breakage of self-control link.

Now a days,the viewpoint of self-control link can't be certificated through experiment ,for we have no advanced diplomacy. The viewpoint of self-control link is developing through long-term miscellaneous observation of malignant tumor together with modern phymatology and other relevant subjects. A perfect concept is created on the base of this viewpoint.

A. Until now the entity and definition of the malignant tumor

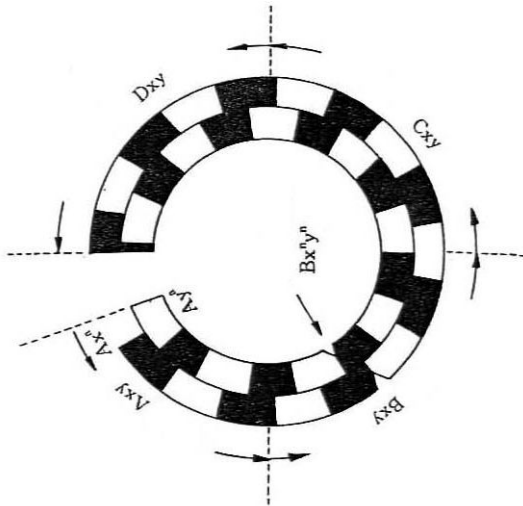


Fig.2 Block diagram of self-control information link of normal vital process with instable intersegment linkage. 1. Instable linkage appears in Bxy portion, and it may be any linkage in this portion. The nearer from the instable linkage to the initiation of the Bxy is, the fewer is the quantity of the segments in the new-forming circular link of self-control, the shorter is the self-control revolution,the faster is the cell-generation, the more immature is the cell, and the higher is the malignance degree. On the contrary, the cell-generation is slower, the malignant degree is lower; 2. Any factor leading to breakage of the instable linkage would initiate malignant tumor. Whether the link breaks or not decided by the instable degree of the linkage and the effect of stimulating factor; 3. Many factors can lead to instable linkage, including genetic factor.

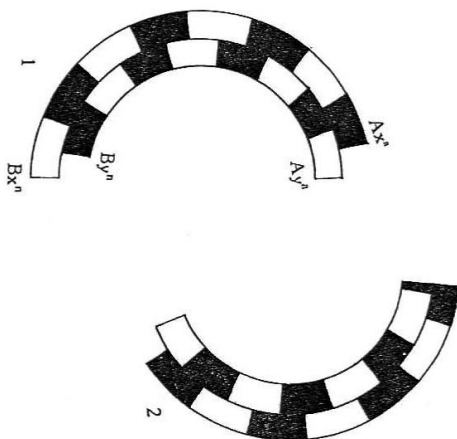


Fig. 3 Block diagram of the breakage of instable intersegment linkage. 1. the portion of reservation,including Axy+Bxy (moiety); 2. the portion of defluvium, including Bxy(moiety)+Cxy+Dxy

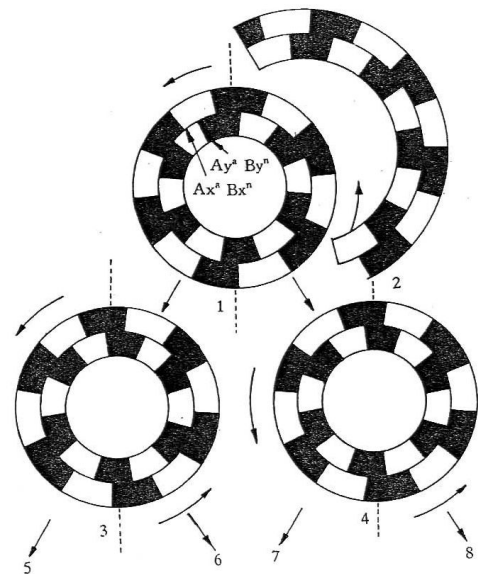


Fig.4 Block diagram of the changes after breakage. 1. Cxy+Dxy+Bxy(moiety) cut to abolish; 2. the portion of preservation, in the portion of Axy+Bxy (moiety),AxaAya+BxnByn composed of the new intersegment linkage and so the self-control link of strip shape changes into annular. The new link controls the new vital process; 3. The first generation of 3, 4 new annular self-control link copying controls the multiplication of the first generation. Since there is no Cxy+Dxy, cells of any generation are immature and nonfunctioning; 4. 5, 6, 7, 8... ..indefinitely conditioned generate under the control of annular self-control link.

are unknown to us. People holding the viewpoint of self-control link believe that the instable intersegment linkage in Bxy portion of the link in malignant tumor cells breaks, and new self-control link having no Cxy and Dxy appears, and then the malignant tumor cells start to generate and develop unconditionally.

B. The malignant degree (that is the differentiated degree) of the malignant tumor is decided by the location of the ruptured instable linkage in the Bxy portion. The nearer from the breakage to the initiation of the Bxy is, the lower is the differentiated degree of the malignant tumor.

C. We know that in the foundation of the viewpoint of self-control link there is no causative agent in malignant tumor, and it is of course incorrect that causative agent is found in malignant tumor. To the utmost, some kind causative agent may be one of the motivations of the breakage of instable intersegment linkage in Bxy. In the past someone has found the causative agent of the malignant tumor and he won the Nobel prize in medicine. But it was certificated a misunderstanding.

D. Seen from the viewpoint of self-control link, diverse carcinogenic agents already known to us can unify to one fundamental point that whatever carcinogenic agents are nothing but encouraging generation, instability and breakage of the instable intersegment linkage in Bxy. For example, genetic factor, radioactive ray and chemical factor are all so.

E. Seeing from the viewpoint of self-control link, we should not have the intention of formulating the program of eliminating the malignant tumor. For we can't control the appearance and the instable degree of the instable linkage furthermore we can't control all the motivations of the breakage of the instable linkage in Bxy. But we should persist our determination and confidence of radical cur-

ing the malignant tumor. Now that there are differences in entity between the malignant tumor and normal tissue, there are differences in metabolism between them. Material exchange is the foundation of metabolism and one of the material foundations of material exchange is cell envelope. We have loopholes to exploit in this aspect after all. To begin with that, the special ascendancy of the malignant tumor often includes its fatal weakness, and this is consistent with physical law.

F. The viewpoint of self-control link is applied in benign tumor, but the breakage of instable linkage is in Cxy portion.

G. We can see further in the foundation of the viewpoint of self-control link, e.g. trying to understand the archebiont and life period.

We discussed some relevant questions of malignant tumor above, standing in the new point of the self-control link viewpoint. But all of those are elemental and preliminary. This viewpoint is only trying to change the traditional concept of malignant tumor, aiming at breaking the existing situation of the human anticancer activities and looking forward to being beneficial for the final defeat of malignant tumor. We eagerly welcome experts and scholars to improve by discussion with each other.

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