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ALOE VERA
INFORMATION SERVICES

ALOE VERA

Aloe Vera and Cancer

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Administration of Aloe Vera in various forms has been shown to inhibit the growth of animal cancers or to actually bring about shrinkage of already-grown tumours. From all the other knowledge we have about the actions of Aloe, it appears that the effects of Aloe upon tumours is mediated via the immune system.

This newsletter presents a general discussion of the formation and growth of cancers from the standpoint of Aloe and one other plant extract substance, bromelain, whose actions may well synergize usefully with those of Aloe.

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ALOE VERA AND CANCER

The Nature of Tumours, of Malignancy and of Tumour Cells

Malignant neoplasms or cancers have several distinguishing features that enable them to be characterized as abnormal. The commonest types of human cancers derive from epithelium, that is, the cells covering internal or external surfaces of the body. These cells have a supportive stroma of blood vessels and connective tissue. Malignant tumour tissues may resemble normal tissues; at least in the early phases of their growth and development. Cancer cells can develop in any tissue of the body that contains cells capable of cell division. Though they may grow fast or slowly, their growth rate frequently exceeds that of the surrounding normal tissue. This is not an invariant property, however, because the rate of cell renewal in a number of normal tissues (eg. gastrointestinal tract epithelium, bone marrow, and hair follicles) is as rapid as that of a rapidly growing tumour.

The term "neoplasm", meaning new growth, is often used interchangeably with the term "tumour" to signify a cancerous growth. It is important to keep in mind, however, that tumours are of two basic types: benign and malignant. The ability to distinguish between benign and malignant is crucial in determining the appropriate treatment and prognosis of a patient who has a tumour. The following are features that differentiate a malignant tumour from a benign tumour:

1. Malignant tumours invade and destroy adjacent normal tissue; benign tumours grow by expansion, are usually encapsulated, and do not invade surrounding tissue. Benign tumours may, however, push aside normal tissue and may become life-threatening if they press on nerves or blood vessels or if they secrete biologically active substances, such as hormones that alter normal homeostatic mechanisms.

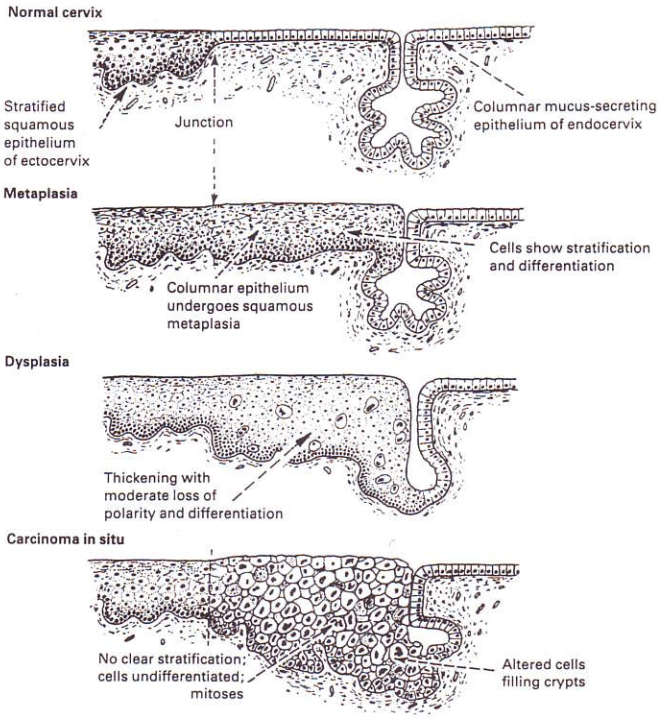
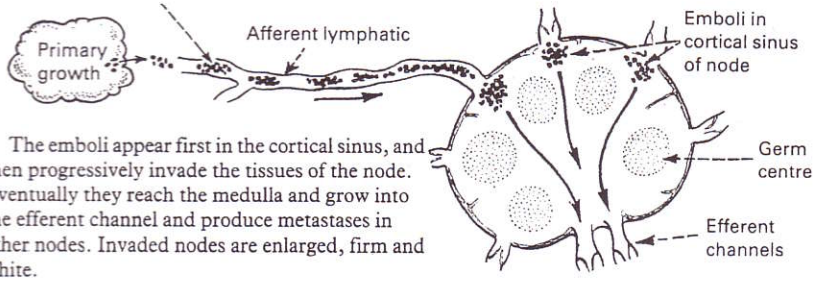


Figure 1 *Illustration of the way a malignant tumour grows out of control and with no functional purpose. The example shows cancer of the cervix (cervical carcinoma).*

2. Malignant tumours metastasize (a word which means breaking off pieces that are then transported to other parts of the body, where they lodge and resume growth) through lymphatic channels or blood vessels to lymph nodes, bones, lungs and other tissues in the body. Benign tumours remain localised and do not metastasize.

3. Malignant tumour cells tend to be "anaplastic" (a word which means less well differentiated than normal cells into recognisable cell types of the tissue in which they arise). Malignant cells may actually show varying degrees of "anaplasticity" or "undifferentiatedness". Correlations are often drawn between the degree of anaplasticity and the degree of aggressive invasiveness which a tumour displays. The more differentiated, the less invasive, the more anaplastic, the more invasive. Benign tumours usually resemble normal tissue more closely than malignant tumours do.



The emboli appear first in the cortical sinus, and then progressively invade the tissues of the node. Eventually they reach the medulla and grow into the efferent channel and produce metastases in other nodes. Invaded nodes are enlarged, firm and white.

Figure 2 *Illustration to show the invasiveness of cancer spreading by metastasis through the lymphatics. The emboli, having grown substantially in one lymph node (gland) create a position from which the spread to other lymph glands is possible.*