INSULIN AND CANCER


By Samuel M. Beale, M.D.
of Sandwich, Massachusetts

The molecular weight of Insulin is 39,000. It contains 10 of the essential Amino Acids. It is associated with anabolism and is in opposition to some of the catabolic glands. Perhaps because of its amino acid content, insulin appears to furnish the necessary material to repair defects in the nerve mechanism that transmits trophic impulses and thus aids in the restoring of a perverted cell to normal.

Some of the indications of cancer susceptibility are:

1. A defect in the metabolism of glucose. The sugar curve runs high in proportion to the degree of malignancy.
3. Hyperalkalinity. (of the blood) (a tiny variation from normal)

All the hormones are secreted in minute amounts and are tremendously potent. A teaspoonful of pure insulin would supply a diabetic, taking 40 units daily, for more than eight years.

The balances of the body are delicate in the extreme. The variations from normal that constitute cancer susceptibility are so minute that the imagination fails to provide a tangible picture. The thyroid, secreting ½ mg. daily of thyroxin, would require 100 years to produce a drachm. And the thyroid is a trifle over-active in cancer. (It is also the largest of the endocrine glands.)

Having the delicacy of body balances in mind, it seems reasonable to expect to restore them with minute amounts of the right material. And insulin is that material.

Insulin may be given once or twice each week in a dose of 3 to 5 units. Safe guides are the blood sugar and the blood pressure. In superficial growths, favorable results may follow injections directly under the growth.

As a rule insulin should be used only as an adjunct to the accepted methods. A period of six weeks given to the use of insulin and the elimination of refined carbohydrates from the diet before the institution of surgery and radiation will be time well spent.

Illustrative Cases

Case 1. J. M. When 5 weeks old, this baby presented a malignant nevus on the tip of her nose. In one week this growth had extended down onto her cheeks and upper lip. She was given ½ unit of insulin and there was no more growth. One half unit of insulin was given each week and at the end of three months, and at that time there remained a few visible veins just below the nose. (These veins entirely disappeared in a few years).

Case 2. E. C. This middle-aged man is a diabetic. He presented a growth at the left commissure of the mouth measuring three eighths of an inch across. By biopsy this was a capillary hemangioma. Insulin was injected directly under this growth twice weekly for five weeks, when it was gone; leaving no scar.
Case 3. E. D. This 40 year old woman presented a huge carcinoma. Simplex of the left breast with a bleeding ulcerated area the size of the palm of a large hand. There were palpable nodes in the axilla. Three units of insulin were given twice each week for 5½ weeks. There was a marked regression of the growth. She then had the indicated surgery and a followup of x-radiation. There has been no recurrence in 19 years.

Case 4. G. S. This 75 year old man presented a cancer of the sclera of the left eye extending from the cornea downward and outward for ½ inch. The diagnosis was made at one of the best hospitals by biopsy and a date set for operation consisting of enucleation of the eye two weeks from the time of making the diagnosis. This gave me but 2 weeks for treatment: but in that time, the malignancy was so nearly gone that when he presented himself at the hospital it was decided that operation was not indicated. This growth entirely regressed under the insulin treatment alone and did not return. And incidentally, a pterygium which he had had a long time disappeared.

Notes: The Case No. 1. is now in high school and is well.
Case No. 2. There has been no recurrence of growth.
Case No. 3. Died April 5, 1956 of arteriosclerotic heart disease and cholelithiasis (no cancer).
Case No. 4. Died 7 years after the above report, but had no growth at the time of his death.

Further comment: The fact that insulin is an oxidizing catalyst may have some bearing on its activity in overcoming cancer as the process of oxidation is deranged in cancer cell metabolism; but more likely is the explanation to be found in the action of insulin in very small doses in re-establishing normal balance of the functions of the pituitary gland and through action on this gland, a re-establishment of normal structure and function of the neurons and nerve pathways involved in the generation and transmitting of trophic impulses. (I have proven that insulin is helpful in correcting many other cell perversions and degenerations. If the above-mentioned effect of insulin proves to be true the explanation is logical.) Because insulin is a product of one of the anabolic glands and the thyroid is one of the catabolic glands, I gave insulin in 3 unit doses to a number of cases of Hyperthyroidism; one of them with a BMR of plus 84, and with this treatment brought the BMR down to a plus 16, with an abatement of all symptoms. As the thyroid is influenced by the Pituitary body by its thyrotropic hormone, it seems reasonable to predicate the effect of insulin on the thyroid through a stabilizing effect on the pituitary body. Insulin is contraindicated in adynamic states such as hypothyroidism, low blood pressure and low blood sugar.