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Personal Experience
IN THE
Treatment of Cancer.

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Massachusetts General Hospital.*



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PERSONAL EXPERIENCE IN THE TREATMENT OF CANCER.¹

BY J. COLLINS WARREN, M.D.,

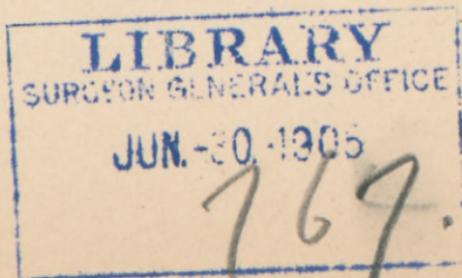
*Associate-Professor of Surgery, Harvard University; Surgeon to the
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I HAVE chosen this title for my paper this evening, not with the intention of bringing before the Society any new or original mode of dealing with this disease, nor of presenting any carefully-tabulated series of cases, but simply for the purpose of recording a few of the conclusions which I have arrived at, in the hope that they may not be without interest to others.

I regret to say that I have no data which throw any light on the etiology of this disease. It may not be out of place, however, to notice a few facts bearing upon this point which the literature of this subject affords. The influence of locality seems to be not without its effects upon individuals. A notable example of this has been observed in the cobalt mines of Schneeberg, where all the men, who work a certain number of years in the mines, die of lympho-sarcoma of the lungs, but none of the persons employed in the neighborhood are affected with this disease.

It has been said that in tropical climates cancer is much less frequent than in the temperate zone, but I have not had an opportunity of studying any statistics bearing upon this point. It is stated that Dr. Haviland has found from statistics that, while high and dry lands are free from cancer, the sources of large rivers subject to seasonal overflow are hot-beds of cancer, the inference being drawn that the organisms of cancer

¹ Read before the Boston Society for Medical Improvement, January 24, 1887.



thrive only or chiefly in moist districts, or in the tissues of those who reside in moist river districts.² So far as I am aware, no such geographical distribution of cancer has been observed in New England.

It would exceed the scope of this paper to endeavor to accumulate evidence upon the origin of cancer from injury or inflammation. Examples of cancer following a continual irritation are sufficiently numerous as in the lip, to justify the assumption that there may be some relation between the local irritation and the new growth. One of the most malignant forms of cancer of the breast that I have seen, dated its development from a blow. The patient was a healthy and finely-developed Irish servant-girl, under thirty years of age. She received a severe blow from a base-ball, and the inflammation thus produced left a hardness, which did not disappear. So rapid was the growth, that an exploratory incision was needed to confirm the diagnosis of cancer.

A chronic balanitis, with thickening of the prepuce, due to an attempt on the part of a patient to cure a phymosis with a razor, was followed by an epithelial ulcer in the sulcus below the corona. Excision of the ulcer in this case had not been followed by a return of the disease when the patient was seen a year or two later.

On the other hand, there may be a chronic inflammation of an organ, frequently attacked by cancer, which may continue for a long time without the development of any malignant growth. More than one case of chronic mastitis, with inversion of the nipple and a gland in the axilla, have been sent to me for a diagnosis, which have terminated either in resolution or suppuration. In two cases at present under observation, the inflammation appears to have been caused

²H. T. Butlin. *International Encyclopædia of Surgery*, Vol. IV.

by the malformation of the nipple which had always existed.

We hear less of the influence of heredity in cancer to-day than did the students of twenty years ago; an example given by Sir James Paget is, however, sufficiently striking to quote: A lady died with cancer of the stomach; one of her daughters died with cancer of the stomach, another with cancer of the breast; of her grandchildren, two died of cancer of the breast, two of cancer of the uterus, one of cancer of the axillary glands, and one of cancer of the rectum. An almost equally marked example is furnished in the case of Miss B., reported below. I have, however, little faith in hereditary tendency, at least, so far as cancer is concerned.

CANCER OF THE FACE.

It has been the fashion, particularly in England, to divide cancer of this region into two varieties, namely, cancer of the lip and rodent ulcer.

The great variety of growths placed in the latter category present essential differences, both in development and outward appearance. In many, the ulcerating type is absent. They all present a mild type of malignancy, although there may be great variations in this respect within certain limits.

It has been stated that these growths occupy the region of the face situated above the line of the mouth, and this is undoubtedly the case, as a rule. I have, however, at present under treatment a case of epithelioma of the rodent type upon the chin, and have observed them even upon the neck, behind the ear.

That variety which is usually developed from the epithelial layers of the skin, and frequently accompanied by that condition of the skin of the face and hands known as keratosis senilis, is apt to be multiple,

and some of these growths may become quite voluminous. Both this variety and that which springs from the sebaceous glands may, at times, assume the ulcer type, though this form does not seem to belong essentially to either.

I am inclined to agree with Mr. Hutchinson's view, that locality has a strong influence upon type. The ulcerating form is most frequently seen near the nose and eyelids; the papillary or tuberos form more frequently on the cheeks and temples. The crateriform ulcer recently described by this author is an example of an active-cell growth, with consequent central degeneration. It is one of the most exuberant and active types of the so-called rodent ulcer family. A very perfect example of this disease I had the opportunity of watching from its early stages recently. At first a nodular mass was seen on the right temple, about the size of a small nipple. The centre was slightly umbilicated. A sudden increase in the rapidity of growth, with corresponding increase in the size of the central depression, developed its crater-like appearance, and necessitated active surgical interference.

Examples of the multiple growths are not uncommon. Mr. J. B. M., a gentleman sixty odd years of age, has been under my observation for ten years, during which time a very large number of epithelial growths have been removed from the face and hands, some of considerable size. During this period he has also been under Dr. White's care for a very striking form of keratosis. One of those curious freaks of which many diseases are capable has occurred within the past year. Last summer he had a small growth removed from the eyebrow. A larger growth of epithelium was beginning to form on one ear, and a fresh outbreak of the disease appeared imminent. A sudden and marked improvement began about three months

ago, and his face and hands appear to be entirely free from keratosis. He attributes this change to the persistent use of vaseline at night.

I have had but little experience with the use of caustics, as I find little difficulty in persuading patients to resort to more radical measures. Very small growths may be destroyed by an application of nitric acid, or boring with a pencil of nitrate of silver.

When not of minute size the question of deformity becomes the most important one in determining between excision or the curette and cautery. Small epithelial growths or ulcers may be neatly removed by excision. A linear wound, held together by two or three stitches, needs no dressing and unites by first intention. If the sutures are removed early the scar will soon be difficult to find. The cautery will be much more likely to leave a visible scar in the shape of a smooth and white and slightly depressed cicatrix. If, however, the disease is situated in some sharp angle of the face, as in the neighborhood of the nose, it is difficult to be as economical of tissues with the knife as with the cautery, and the use of sutures is liable to bring the edges of the wound together in a way which will produce more deformity than when nature herself is allowed to borrow skin from all directions. A prominent ridge near the nose or eye may be avoided by allowing the wound to heal by granulation.

When larger wounds are necessary, an attempt at healing by first intention will cause some constitutional disturbance which may not be desirable in old and feeble individuals. The cautery leaves an open wound protected by an eschar, and subsequent pain and fever are rarely observed. Ordinarily these wounds need no dressing for the first few days, and when of considerable size may heal by scabbing. Oc-

asionally there may be a secondary hæmorrhage, which is usually a slight affair and easily checked, but it is likely to alarm the patient and necessitate an uncomfortable bandage. In extensive disease or irregular-shaped growth of the face, however, it causes far less deformity than the knife. The curette should always be used with the cautery, as the soft superficial masses of epithelium are readily removed in this way; the finger-like projection of epithelium into the subjacent fibrous stroma can be readily attacked by the hot platinum. The curette should never be used alone even in the smallest growths, for there is almost in every case a projecting off-shoot of the disease penetrating the denser tissues which will escape the instrument. The stick of nitrate of silver may be substituted for the cautery in such cases.

A striking instance of the advantages of the cautery (Paquelin) has recently occurred to me. The disease had involved the integuments of one side of the nose and an adjacent portion of the cheek, and had begun to invade the opposite side. One ala was entirely destroyed, and the part above the inner canthus of the eye, a dangerous locality from a prognostic point of view, was on the point of being invaded. A thorough use of Paquelin's cautery, under ether, completely removed the growths at one operation and the nose is now covered with a clean and smooth cicatrix. No pain or constitutional disturbance was experienced at any time by the patient, who was seventy-five years of age. For several days the eschar served as an excellent dressing, and no other was used until later.

Since the introduction of cocaine, I have used it in several cases with satisfactory results. An ulcer on the chin, about the size of a half-dollar, was cauterized without pain, although the epithelial masses penetrated quite deeply. No other assistance was given than

that of the patient himself, who worked the bulb vigorously while the cautery was applied. It was necessary to use the subcutaneous injection of a few drops of a twenty per cent. solution at several points in the periphery of the ulcer. Alarming symptoms have been reported as following the use of three drops of a solution of this strength under the mucous membrane of the mouth. I have noticed on two occasions in this patient, symptoms of faintness and distress apparently due solely to the cocaine, but these have followed also the injection of a ten per cent. solution in the same individual. The anaesthesia has not been complete in this case, except after the use of the twenty per cent. solution. Where there is an ulcerated surface it can be painted over with one of the weaker solutions with good effect. It promises to replace ether in a certain number of cases.

The care of the skin is an important feature of these cases. The epidermis must be kept in a soft and pliable condition, and not allowed to accumulate. Various substances, as salicylic acid or zinc in vaseline as a vehicle, may be applied after washing with appropriate soap. The liability to recurrence varies, of course, with the progress the disease has made, but some cases recur with obstinacy even when removed at an early stage. An example of this characteristic is shown in the case of Mrs. P., aged about sixty, from whom I removed a nodule on the bridge of the nose, in 1872. A suspicious scab was removed shortly after, but the microscope failed to detect any cancerous cells in it. The disease returned in about eighteen months, and before she could make up her mind to another operation, had involved the integuments of the whole bridge of the nose. It was thoroughly cauterized under ether, but in a year or two it broke out again; treatment was continued until 1883,

but as I was unable to promise a radical cure the patient finally abandoned treatment. She is, I think, still living with a well-developed rodent ulcer on this region.

As a contrast to this case, that of Mr. S., eighty-two years of age, may be mentioned. He was operated upon in May, 1882, for an extensive ulcer at the outer canthus of the right eye, involving the conjunctiva and some of the tissues of the orbit. Although the sight of the eye has been destroyed, there has been no return of the disease. He has consulted me since for several small nodules near the lid of the left eye.

CANCER OF THE BREAST.

The favorable results which have attended a more radical operative treatment of this affection have given encouragement to surgeons to hope for cure in many cases which formerly were thought suitable only for palliative measures.

The rule has been laid down by some authors that in all cases there should be a thorough dissection of the axilla, whether glands are felt there or not; and some, notably Dr. S. W. Gross, of Philadelphia, recommend a more extensive removal of the tissues of the breast, leaving often a wound which can only be healed by grafting.

The anticipation of glandular disease of the axilla, seems to me a very important step forward in the surgery of the breast. The lymphatic vessels and glands, which are the routes through which the disease travels, are destroyed, and isolation of the disease is more effectively produced in this way than in any other. Small glands may, moreover, already exist, which can be detected by the touch of the finger through the integument. It has been my experience to dissect out the pyramidal mass of fat which fills this

region, and to find one or two nodules enclosed in its centre, which could not be felt before the operation.

The ordinary duration of this disease, if left untreated, is said to vary from six months to three years, taking the average of cases. With this period as a standard, it will be seen that life is not prolonged in many cases by the operation; but a careful inquiry into the future history of hospital patients would, I think, bring out replies which would prove encouraging.

The following cases are selected as fair samples of what may be accomplished by the present more radical operation :

Eighteen months' immunity. Mrs. B., Amesbury, Mass., about sixty years of age. Disease had existed two months. A hard and voluminous cancer of the breast, with large glands in the axilla, extending as high as the clavicle. The breast was amputated and the axilla carefully dissected out, all glands having apparently been removed. The case was not promising, and one which, in former times, I should have declined to operate upon. The operation was performed July 9, 1885, and Dr. H. G. Leslie writes me at present date that there is no evidence of a return of the disease.

Nearly two years' immunity. J. D., about forty-five years of age, was operated upon at the hospital, March 29, 1884. She had had a tumor nine months; at the time of the operation it was the size of an orange. The records state that no axillary glands were removed, although the cicatrix was seen to extend two or three inches beyond the edge of the pectoralis major when she was examined on her return to the hospital last week, for the removal of a small nodule in the cicatrix, at the axillary end, about the size of a coat-button. No glands are felt in the axilla. The microscopic examination by Dr. Whitney showed the original tumor to be a medullary cancer.

Two years' immunity. Miss B., about forty years of age, was operated upon in December, 1884. Had first noticed a tumor in breast the previous winter, but had noticed an eczema of the nipple in 1883. A careful dissection of the axilla was made in this case, although no glands were felt. On opening the mass of fat removed, one small cancerous nodule was found in its centre. Inquiry of her physician, Dr. C. P. Putnam, last December, elicited the fact that no return of the disease had been reported at that date.

An interesting feature of her history was the prevalence of the disease in her family. Her maternal grandmother died of cancer of both breasts, at the age of thirty. A maternal aunt died of cancer of the breast. A cousin on mother's side died of cancer of the rectum. Aunt on father's side was operated upon at the hospital in 1883, for a cancer of the breast.

Two-and-a-half years' immunity. Miss J., Haverhill, Mass., was operated upon in June, 1884. The breast was very voluminous, and the cancerous nodule was small, and situated near the sternal boundary. Nevertheless, the incision was carried into the axilla, and a portion of the axillary fat removed. I have seen the patient quite recently; her health is excellent, and she is able to attend to all her duties, which are quite onerous.

Three years' immunity. Grace M., forty-five years old, was operated upon at the hospital in July, 1883, for a scirrhous of three years' standing, which had not involved the axilla. The tumor had slowly increased in size during this time, and the nipple was extracted. She was seen last spring and carefully examined, the parts being found in a perfectly healthy condition. Her health is good, and she has been in active service since the operation.

Two other localities which are occasionally the seat of cancer may be briefly mentioned in this paper.

CANCER OF THE RECTUM

would not appear to me to be of so frequent occurrence in this country as in England or the continent of Europe, comparing my own experience with the statistics of foreign writers. The worst form of this disease which I have met with has been in the case of two young women.

The first case was a woman, twenty-three years of age. The symptoms were of one year's standing, when she entered the hospital. The patient suffered great pain in defecation, but the anus was not involved, the disease being wholly within the rectum, which it nearly filled with a very dense mass of tissue. An incision through the disease and sphincter was performed, with but temporary relief, and a few weeks later lumbar colotomy was performed, which gave considerable relief, which continued until her death, about nine months later.

The second case was a lady about thirty-five years old, with a voluminous growth springing from the anterior wall of the rectum, and filling out the perineum. The pain in this case seemed to be due largely to the growth of the mass, and was principally in the hip. There was also tenesmus and frequent desire to defecate although no obstruction. An active application of the actual cautery was made, as it was feared that colotomy would not relieve the symptoms in this case. The operation freed her from pain, but she sank and died apparently from no special inflammatory process, about three weeks later.

Attempts at extirpation have been quite unsatisfactory, and I am inclined to advise as little interference with the disease locally as possible, unless it be seen

at a very early stage. But such a case has never presented itself to me. Indeed, I have never seen one where it seemed mechanically possible to remove the whole growth.

Colotomy is a palliative operation in certain cases, but not by any means in all; for those near the anus it may relieve the acute local pain; for those higher up it is only indicated in case of marked obstruction, which, however, does not always occur.

CANCER OF THE ŒSOPHAGUS.

My experience with dilatation of the stricture produced by the disease in this locality has not been encouraging. The painful nature of the treatment and the rapidity with which obstruction occurs on its discontinuance, make this a method unsatisfactory to both surgeon and patient. On one occasion, an attempt to pass the ivory probang in a very old lady with cancerous stricture, although made with great care and gentleness, was followed by death of the patient three days later. In another case, the persistent and most careful use of the bougie, although it kept the stricture from closing entirely, did not prevent great irritation of the œsophagus from obstruction. Considerable inflammation occurred around the locality of the disease, tracheotomy was performed, and at the autopsy, some weeks later, perforation of the œsophagus was found, with the production of which, of course, I had the privilege of being accredited. In a case which has been under treatment during my present service at the hospital, I have accordingly tried the operation of gastrostomy. Until the termination of the case it will not be possible to express an opinion on its merits and disadvantages. The management of the fistula requires an amount of intelligence which the average hospital patient cannot always be depended upon to possess.

The use of a flexible tube permanently retained in the œsophagus offers certain advantages over either of the other methods, which would incline me to give it a trial.

In regard to the efficacy of drugs in the treatment of cancer, I have had no positive results.

Arsenic has been tried repeatedly in cases of lympho-sarcoma, without the slightest success. In a recent case of this disease an exploratory incision was made, and since the wound thus made has healed, the tumor has slightly decreased in size. This result may have been due to severing some of the vascular connections of the tumor. I have used chian turpentine also in several cases, without any effect, in cancer of the breast, of the œsophagus and rectum.

The recent publication by Mr. Clay, of cases of successful treatment of cancer of the lip, tongue and uterus, has again called attention to this drug, and the mode of administering it is accordingly given here. Mr. Clay maintains that physicians are too easily discouraged, and that its administration should be continued through the period of at least three months, in order to obtain favorable results.

The mixture which Mr. Clay recently recommended was the following:

Chian Turpentine	3 iss.
Flor. Sulph.	3 i.
Divide into thirty pills.	

Magnesia should not be used as an excipient, and they should not be coated.

Two pills should be taken three times a day for three weeks; then three pills three times a day, or twenty-seven grains of chian turpentine daily. They should be taken about one-half hour after eating; after being taken for three months, they should be discontinued for three days in every fortnight. Messrs.

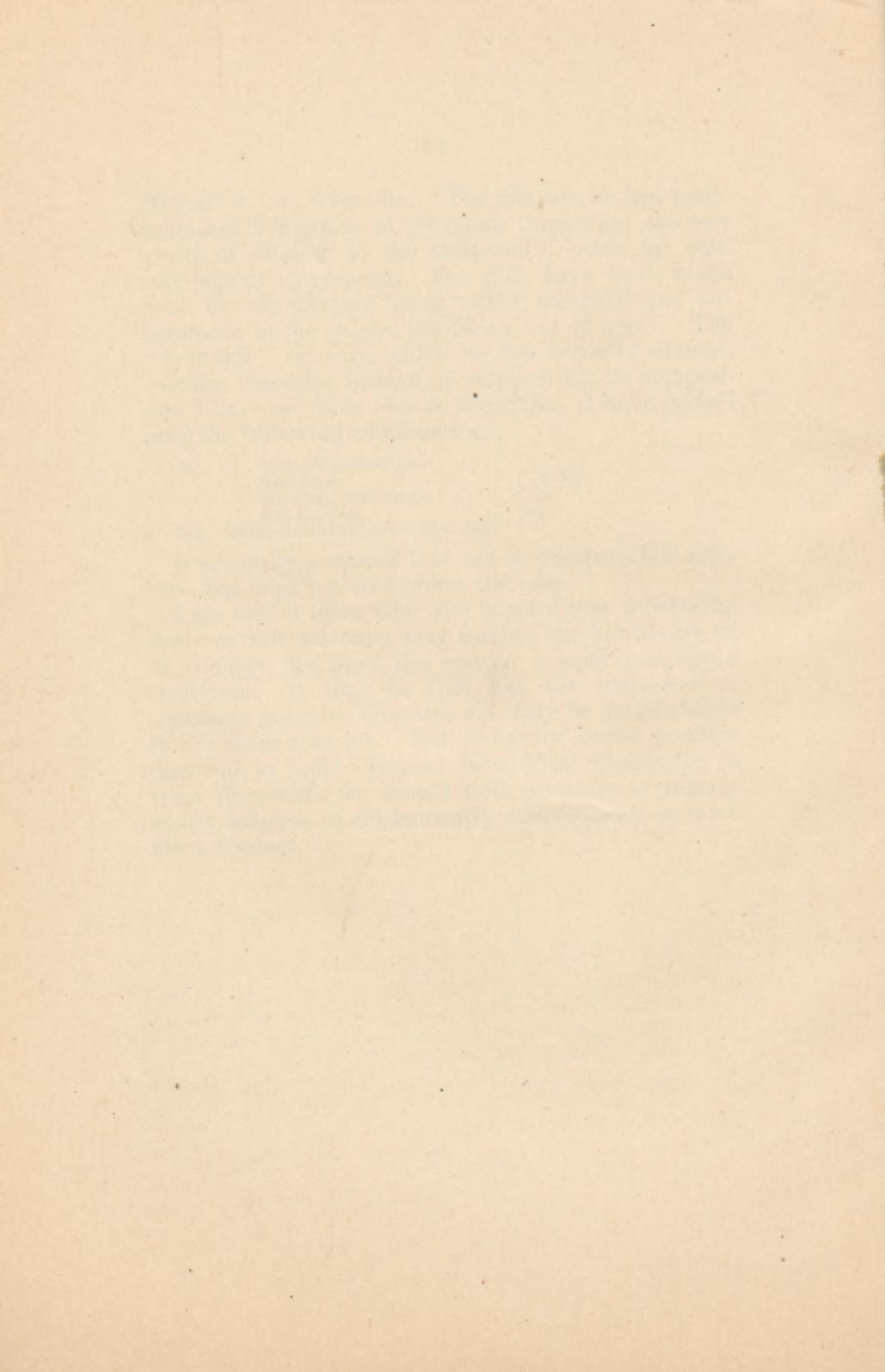
Metcalf & Co., write me: "The mixture he has made contained five grains of the chian turpentine and two grains of sulphur to the teaspoonful, made up with mucilage of tragacanth. The pills have been much used, but the mixture being rather unsightly and not agreeable to the palate, has fallen out of use." The "Southall" mixture, which he has recently advised, contains resorcine instead of sulphur, but its composition I have not been able to ascertain. I have myself used the following combination :

R	Chian Turpentine.	
	Resorcine	℥ aa ii.
	Muellag. Gum Acac.	℥ ii.
	Aq. Cinnam.	℥ i.

Sig. Teaspoonful three times a day.

If carefully prepared it is not a disagreeable mixture, but most patients prefer the pills.

I am one of those who are hopeful that a bacterial study of this affection may further our knowledge of its etiology, and pave the way to a more intelligent treatment. It may be that, like the treatment of traumatic infective diseases, this may be prophylactic rather than curative. But it hardly seems possible that with so rapid advances in surgical knowledge in other directions, we should still continue to remain nearly helpless to aid humanity affected with so terrible a disease.



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