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PART I.  
ORIGINAL COMMUNICATIONS.

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ART. XI.—*On Encephaloid Cancer occurring as an isolated manifestation of Malignant Disease; and on the Cancerous Degeneration of Warty Excrescences: with the Operative Treatment applicable to each<sup>a</sup>.* By RICHARD G. H. BUTCHER, Esq., M.R.I.A., F.R.C.S.I.; Surgeon to Mercer's Hospital; Examiner on Surgery in the Royal College of Surgeons in Ireland; Lecturer on Clinical Surgery, &c., &c.

ON a former occasion it was my pleasure to bring under the notice of the Surgical Society of Ireland some lengthened observations relative to malignant diseases, and chiefly upon the relationship that is found to subsist between cancer and fungus hematodes,—an alliance which I illustrated by cases, preparations, and specimens: firstly, where the diseases existed together; secondly, where the one was consecutive to, or replaced by, the other; and thirdly, where the two manifestations of disease were continuous in the same tumour<sup>b</sup>.

My object now is to direct the attention of the profession to some remarkable instances which I have met with, where

<sup>a</sup> Read before the Surgical Society of Ireland, Session 1856.

<sup>b</sup> Dublin Medical Press, April, 1847.

the encephaloid form of cancer had been the primary development, limited to a part, solitary in its germination, progressive and rapid in its course,—in its consequences fatal to life. To this I shall append some observations relative to the cancerous degeneration of warty excrescences, and the treatment I deem best suited to both.

The most remarkable instances of encephaloid cancer, as an isolated morbid product, which I have met with, have sprung up in the armpit, attaining in a short time to a magnitude almost incredible. As the first example confirmatory of this fact, I shall extract from the catalogue of my museum the following particulars: they are in reference to the cast, No. 151, from which an accurate drawing has been made, and represented in Plate I.

CASE I.—*Encephaloid Cancer, existing as a solitary manifestation of malignant disease, in the right armpit.*

The patient, a young man, aged 35 years, complained, about two years previous to the period when I saw him, of a “small kernel” in the right axilla; it did not exceed the size of a hazelnut for six months, when the pain was of a most distressing and lancinating character. After the lapse of this time the tumour began rapidly to increase, which it continued to do for a year; the pain, however, was not so continuous, and became even of a milder character. After this period, its growth was truly surprising and alarmingly rapid, so as to pass beyond the forepart of the right chest, filling up the entire axilla and descending far below it, forcing out the arm to a great extent from the side, and extending posteriorly beneath and behind the scapula, at the same time forcing the base of the bone near to the spine. At this time the pain was extremely severe, as if a cord was bound most forcibly round the tumour; and from that date the patient gradually grew worse, and struggled for three months, when he died, worn out by irritation.

Post-mortem examination did not reveal the least encroachment of the diseased mass within the cavity of the chest; but the pleural sac on the right or affected side contained at least a gallon of watery fluid. Patches of lymph lay upon the surface of the lung in isolated spots, and also over the costal pleura, while the lung was collapsed in the right chest. The structures of the lungs, the liver, the mesenteric glands, and brain, were each examined with the greatest carefulness, yet no trace of carcinomatous deposit could be detected in them, or in any other parts. The tumour presented over its entire surface extensive networks of vessels, independent of large veins which

covered it in all directions; besides this vascular coloration there was a reddish-brown hue, tinged with yellow, predominating in a very remarkable manner over the entire growth. The most prominent part presented a brilliant carmine hue where disrapture of the parts threatened; but this did not take place, yet here was the softest, most elastic, and most painful part of the entire growth. Before death the body presented a striking example of emaciation; while the right upper extremity was increased to seven or eight times its natural dimensions by effusion, the result of pressure on the absorbents and interrupted venous circulation; besides, the colour of this engorged arm was of a peculiar pink shade, and the pain occasioned by its compressed nerves was of the most excruciating description. The wretched sufferer was ever complaining of the tingling, darting, bursting sensation in it, until three days before death, when all sensation was annihilated, though its temperature was inordinately augmented above the sound limb.

The next instance is even more remarkable, for though a striking similarity pertains between it and the first, yet this latter is more interesting; it, too had its nidus in the armpit, but upon the left side; it had attained to far greater magnitude; it had distorted parts; and, independently of its corroding influences, interfered by its encroachments with functions essential to life; yet, by the all-powerful law of adaptativeness impressed for wise purposes on the living frame, death, by an unusual way, was averted, and followed much in the course which I have related; but in the description of the annexed case, I have been more minute than in the former, because it was for a longer time and more steadily under my observation.

CASE II.—*Encephaloid Cancer existing as a solitary manifestation of malignant disease, located in the left axilla.*

Henry Cleighton, aged fifty-six years, admitted to Mercer's Hospital, Nov. 13, 1855, with an enormous tumour situated in the left armpit and implicating widely the parts around. He stated that in February, 1855, he first perceived a small kernel, not larger than an almond, in the axilla; the fact of its being there without his consciousness, implied origination without pain or uneasiness, and he could not assign any provocation for its occurrence. To this early development his attention was directed by casualty, and in the following way:—After enjoying a bath, when in the act of drying himself with a coarse towel, a fold of it being forcibly drawn beneath the

arm occasioned pain, and, on feeling the part, he was for the first time sensible of the hardness and swelling there. From this period the growth gradually assumed a wider extension; it was slow, gradual, but progressive,—the patient described its feel as that of a hard lump, partially movable. When not interfered with, it lay protected in its recess and unproductive of annoyance; but, on being handled, great uneasiness and rather lancinating pain settled in the part for many hours after, while, upon any constrained exertion, when the limb was forcibly extended, and the muscles brought into rigid contraction, its type was more of a dull, heavy, oppressive weight, or paralyzing force.

From this early period of the growth of the tumour, after the first three months of its existence, it began rapidly to increase, matting all the textures in its vicinity together, and soon slowly crept beyond the confines of the recess in which it germinated and sprung; and emancipated, released from pressure, it quickly passed in that direction offering least resistance, forwards beneath the pectoral muscle. Previous to this change the suffering was intense, agonizing, “as if a burning iron was thrust into the part.” Upon the relaxation of its coverings, the pain was more moderate and subdued, the skin was unaltered in its colour, and occasionally a throbbing, pulsatile feel was all that was experienced by the patient, up to this time, even when a large abnormal mass, the size of the clenched hand, blocked up the humero-thoracic space. A visionary anticipation was held out, that a crisis was at hand; that matter, though slow in forming, yet was sure to be the result, and with its presence might be anticipated a relief from local annoyance and constitutional distress. In April, additional to the increase of the tumour forwards upon the chest, it passed upwards along the under surface of the clavicle, and rapidly began to enlarge backwards, lifting outwards the axillary costa of the scapula, and tilting backwards and upwards its posterior angle; the increase was rapid at this time in all directions, so that its magnitude exceeded the size of an adult head; through all this deposition of structure, this development of growth, the pain was unrelenting, sometimes unmitigated for hours. In August the tumour was mistaken for a large abscess, and opened to an inch and a half in its most prominent part, namely, in front—the patient stated that “a small quantity of soft curdy matter was pressed out through the opening, but did not flow off of its own accord.” The edges of the wound however, were healed in ten days, and a silvery cicatrix, about two lines in width, marked the place of selection. The patient

expressed himself to have felt some relief from the bleeding of the wound, and he thought by it the tightness was released. Yet, after the lapse of a few days, all his tortures returned in an unmitigated form, and on the date already mentioned he was received into Mercer's Hospital.

His condition now was truly pitiable: the tumour had attained enormous dimensions, almost covering the left side of the upper half of the body; from the angle of the jaw it had extended as low as the ninth or tenth ribs, and from the mesial line in front to the spine posteriorly; the tumour had also considerably altered its outline and configuration of surface: it was nodulated, large and prominent masses presenting in various directions. Its entire bulk inferiorly appeared most defined; with a wide base, spread out, as it were, across the left chest, it projected directly outwards and forwards, assuming a huge conical form, with a smoothly nodulated surface. Beyond and in front of this, the primary growth, was a superadded part rising upwards to the clavicle, and forwards to the sternum, while posteriorly a flattened process, gradually expanding, incorporated in itself nearly the entire scapula, lifting it from the thorax many inches, and covering it with a like production.

The integuments over the tumour presented many shades of colour; around its circumference the discoloration was but trifling, particularly beneath the clavicle and at the forepart of the chest, while the colour over the most prominent parts, particularly the larger mass distorting the arm from the side, was of a deep livid purple colour, conspicuously turgid in many parts with a bright reddish hue. On closely examining the circulation on the surface of the tumour, many peculiarities attending this class of malignant growths were discernible. Over the more pallid walls of the tumour large veins coursed, not prominent and projecting, but lodged in channels or sulci; the blood in these vessels seemed even darker than that circulating through a healthy venous system. The inosculation between these tubes were frequent, yet tortuous, and in many places the veins fully attained the magnitude of the saphena, while the general aspect of the vessels, from their anatomical arrangement, gave the impression that the contained fluid was not commensurate to their capacity: hence, as it were, a flaccid appearance. The high coloration of the tumour was occasioned by the inosculation of numerous small branches of veins and arteries, presenting a ramiform arrangement, while the preponderance of either set of vessels stamped the colour of each particular part. Many of these vessels on the surface must be looked

upon as enlarged capillaries, that were never intended to carry red blood, and whose walls were thinned and weakened by distention from the incurrent afflux; but, in addition to these, there were many of new creation, imperfect in their organization, and that readily yielded and broke up, extravasating their contents where superficially situated, and occasioning, as I believe, the yellowish hue so characteristically prominent in this form of malignant disease. Around the confines of the tumour the integuments were soft, flaccid, and immovable, while over the more projecting and discoloured parts they were tense, shining, thinned, and of an almost transparent delicacy, and adherent to the structure beneath.

On manipulating the tumour, taking it *en masse*, balancing it in the hands, an idea of its inordinate size and weight was more strikingly enforced; it glided but little upon the chest, to which its concave base was moulded, and any force exerted upon it influenced the entire upper extremity; in many parts firm, unyielding portions could be felt, while in others a springy, elastic feel was communicated to the touch; and in others a distinct undulating sensation, almost amounting to fluctuation. In two parts the latter was strikingly characterized, and produced by the flow from disrupted vessels in the softened and broken-down tissues of the morbid product, from half to three-quarters of an inch from the surface.

Such was the condition of the local manifestation of disease on the date of admission; and coexistent with this state was the constitutional disturbance augmented. Unrelenting pain, seldom varying day or night for weeks, produced its marked effects: emaciation, debility, a haggard and wretched aspect, and, as typical of the morbid poisoning, a yellowish tinge pervaded the entire body. The pulse, too, pointed to the fatal malady—it was 125; and I may here state I have seldom seen it below 120 when malignant disease has been fairly established in the system.

The limb was placed in a relaxed position and propped up with pillows; the most suitable diet and support were afforded to lift the drooping powers of life, while sedatives were carefully administered to allay pain, to soothe, and solicit sleep.

So rapid was the growth of the tumour, that on the 28th of November its bulk had become considerably augmented in every direction; gradually increasing upwards, it passed beneath the clavicle and became prominent in the posterior inferior triangle of the neck. On the 15th of December that portion of the tumour in the neck had assumed the size of the section of a large melon, and the annoyances created by it were

gradual as its growth. The tension originating from the increase of size compelled the patient to elevate the shoulder, to compensate for the dragging on the parts; at this time, too, the arm began to swell. So completely and fully blocked up was the armpit, that the extremity had to be kept apart from the side, yet the pressure on the nerves, evidenced by the numbness of the entire limb and the obstruction to the returning venous column, could not be altogether obviated by any posture. The tumour in the neck, continuing in its growth, passed backwards over and beneath the trapezius, upwards to the angle of the jaw, and forwards displacing the larynx and trachea considerably to the right side; the angle of the thyroid cartilage projected remarkably in this direction, for not only were the parts put out of situ, but they were likewise twisted by half a turn, owing to the morbid product insinuating itself beneath the left margin of the trachea and larynx; by this malposition of parts respiration was a good deal interfered with, and deglutition rendered difficult, at least the swallowing of solid morsels. The tumour in the neck was restrained from any great prominence, owing to the manner in which the fascia binds down this region; nevertheless, its magnitude was considerable: owing to this arrangement its lateral expansion was in a greater degree overcoming all obstacles, and thus thrusting the trachea aside; the force of the tumour was also manifest upon the deeper-seated parts—the vessels circulating beneath, for, though a feeble current was propelled by the heart's action through the main arteries, yet even gravity itself could not overcome the resistance for its return,—therefore, all the veins on the surface were enormously enlarged and distended; the external jugular was as large as the little finger, and received numerous tributary vessels on either side, particularly above, from beneath the jaw. Now the arrangement of these venous trunks was widely different from that of the veins proper to the morbid growth: the former were convex above the surface, movable with the coverings of the part, while the latter were not in the least degree prominent, but lay channelled in the tumour. No words can describe the pain which the patient suffered at this time: I have seen him writhing in agony and bathed in sweat; in giving expression to his misery his voice was feeble, his respiration short, rapid, and faulty, suddenly arrested by “darting pain, as if a knife was thrust through the tumour.” At other periods he would complain as if “a burning iron was searing the part,” while again, when relating his miseries, he would suddenly become faint, overcome, and with all the indications of impending death, until resuscitated by powerful stimulants; but here

the respite was of short duration—again the same scene was to be enacted, for ever the torture was returning.

At this time, too, a symptom was well marked which I had been watching for days, namely, a drooping of the eyelid on the affected side; it crept on almost imperceptibly, but finally was accomplished; yet, on rousing the patient in speaking to him, there was proof that the motor power was only in abeyance, not annihilated, for the lid under such circumstances was tardily raised, and kept open. The left side of the face, too, was slightly œdematous, which may probably be ascribed to the patient reclining towards the affected side, if not fully turned on it. On January the 6th the patient referred great pain to the root of the neck while in the act of swallowing, and when the morsel was passing down, in addition to the pain, a sense of suffocation; on careful manipulation a small portion of the tumour could be traced passing from the neck downwards in front of the trachea towards the chest. On percussion over the first bone of the sternum, a dulness was evident, quite opposite to the sound produced previous to the elicitation of those unpleasant symptoms.

Thus the case went on until the 12th, when symptoms of rapid effusion in the chest were fully developed. The information to be derived from physical signs, so beautifully traceable through all the stages of ordinary pleuritic effusion, were here denied, entirely masked by the abnormal growth muffling the thoracic cavity. The patient was now restless, tossing from side to side, rolling partially over the affected chest—anxious breathing, respirations quick and small, attended with severe stitches striking through the side, and a pulse rapid and faltering. The sufferings of the man at this time, though apparently smothering from oppressed respiration, were the most frightful I ever beheld: no opiates could quiet his state; suddenly he would scream out, at the same time making a violent effort to get from the bed; but would again instantly sink down exhausted and overcome. During these violent contortions the arm lay swollen in an alarming degree, as if paralyzed, immovable, by his side. Thus, these miseries were repeated over and over again, with but a brief intermission for twenty-four hours, when nature reluctantly succumbed, and death quickly followed.

Plate II. exhibits the most accurate drawing, taken from a beautiful cast in my possession, of this body.

*Examination after death* (29 hours).—It is unnecessary to advert to the external characters of the tumour; the thickness of the skin in various parts, its attenuation in others, the



peculiarities of its colour, or the disposition of its vessels. On section, dense stromal masses pervaded it, of various shapes and sizes, allocating it into spaces, most generally assuming a spherical form, and containing within them a substance closely resembling cerebri-form matter. In other parts of the growth, however, it was not so: hard fibrous bands, striking from a central nucleus, radiated in every direction, while within the interspaces close to the centre the contained parts presented a firm granular arrangement. The colour so vividly represented on the surface was not deficient in the deeper parts of the tumour; in many points, particularly where the resemblance to cerebri-form matter was most striking, the vascular supply was very abundant and most delicately arranged, while in others the arterial colouring seemed to exude through the coats of the vessels, and tinge all indiscriminately. In many points there was interstitial hemorrhage into the loculi of the more softened parts, giving rise to fluctuation, and yielding by its presence to the unpractised touch much of the semblance of suppurative action established and perfected. As already noticed, the scapula was received between two great divisions of this tumour behind, the one superficial, and the other beneath its surface; but the bone was not involved or incorporated with the morbid product. Within the armpit the glands were enlarged, spread out, and the surfaces of many identified with the encephaloid matter; they were pale, flabby, and sometimes difficult to be traced. This fusion of the glands and the cerebri-form matter together was best marked in the upward development of the tumour, as it reached the posterior angle of the neck. On lifting the mass from the surface of the thorax, I was much surprised to find that a deep root held it in front; in other words, a large process of the growth had passed between the second and third ribs, having destroyed the muscular fibres closing the intercostal space. On removing the integuments from that portion of the tumour in the neck, the difficulty experienced in deglutition was readily accounted for—the partial rotation and displacement of the trachea to the right side was easily recognised—but in reference to deglutition it was observable that a considerable piece of the anterior part of the tumour passed into the chest by the left side of the trachea, pushing it over to the right, but not displacing the œsophagus, which was compressed in a moderate degree against the spine; then, during the act of deglutition, when the morsel arrived at this point, owing to the bony arch in front, the morbid mass could not sufficiently yield to its easy passage downwards. On lifting carefully the sternum and the cartilages of the ribs

on either side, the extent and very peculiar arrangement of this growth were well seen in situ. That portion which passed from the neck was fully as large as an orange, but spread out, and of a spheroidal shape, while that passing through the intercostal space bulged into the left chest, at the same time that a long, wide, flattened process pushed down, as it were, the pleura-costalis and crept between it and the inner surface of the wall of the chest forward, until it met with that portion descending from the neck, when they became indissolubly united together. This portion of the tumour was likewise attached and incorporated with the upper lobe of the left lung. The organ, though attached in this way above, was completely collapsed,—the corresponding pleural cavity containing, by measurement, four quarts and a half of a yellowish watery serum, with some flakes of lymph floating through it; while the cavity of the pleura on the right side held nearly a pint of similar fluid. The lung on the right side was partially emphysematous, but had no deposit in its parenchyma. On slitting open the pericardium, two ounces and a half of light straw-coloured serum were contained in it. The heart was but little larger than natural; it was pale, flabby, and with an abnormal deposit of fat in the course of its nutrient vessels; its valves were in a perfect state, and altogether healthy. On examination, the brain proved to be healthy in every way; the only change noted was an excess of the spinal arachnoid fluid, which, no doubt, filled its office here as a compensating support for weakened vascular supply. With the same carefulness, the liver, mesenteric glands, and abdominal viscera were examined, particularly the former; portions of it from various parts were submitted to microscopic examination, yet no departure from a healthy arrangement could be detected or found out.

I have met with many other instances where the encephaloid form of cancer made its appearance as a *solitary manifestation of malignant disease*. I have seen it often in the testicle, and in many instances removed without any return of disease. I have seen it in the eye, and extirpation performed successfully. I have met with it in the breast, and seen it in small masses on the extremities, and both operated myself and assisted others in several cases with encouraging results. About seven years since I assisted in removing the upper extremity of a young gentleman, where the entire fore-arm was one mass of encephaloid disease. After the most careful and rigid examination of the body, the tumour was presumed to be an isolated one, and, believing such to be the case, I sanctioned

the operation. I have a drawing very accurately representing the condition of the part. The entire fore-arm had been transformed into a shapeless mass, measuring above the wrist nineteen inches in circumference, and below the elbow eighteen and a half. Seven years have now passed by, and it is pleasing to say there has been no return of the disease—the prognosis was correct. Another example I shall relate, where the disease was isolated, and successfully removed.

CASE III.—*Encephaloid Disease of the Testicle; Extirpation; Recovery.*

In April, 1851, a gentleman applied to me for advice about an enlargement of the left testicle, which commenced five months before. It made its appearance as a small tumour, which continued gradually to increase for three months without pain—no uneasiness more than a dull, heavy sensation marking its presence. After this time the pain became excessive, and subject to exacerbations, both their frequency and violence increasing to the date of the removal of the part. Coexistent with the growth and enlargement of the gland were the constitutional distress and emaciation manifest. When the gentleman came under my care, the tumour was fully the size of a small melon, of somewhat an ovoid form, and measuring sixteen inches around its longest circumference, while its circumferential measurement transversely was fully eleven inches. The integument was of a dusky red colour, with numerous large veins coursing on its surface. The tumour throughout was springy and elastic to the touch, and exceedingly painful after handling. The cord was neither enlarged nor thickened, and on the strictest examination I could not detect internal mischief in any of the vital organs or abdominal viscera. I pointed out fairly and impressed upon the gentleman my opinion as to the inveterate nature of his complaint, his formidable malady, and urged the propriety of at once removing the part. When he heard my decision, he was silent for a few minutes—considered—and then readily assented to the proposition. Assisted by the late Mr. Rumley, I removed the testicle, and a more perfect specimen of encephaloid disease could not be procured. The gentleman rapidly recovered after the operation, and, I am happy to state, is now alive and in good health, following his avocation as an extensive farmer in the country.

From a thoughtful review and consideration of these several facts, dispassionately weighed, I am led to the inference that

operative surgery might be had recourse to more frequently than it is in many cases of malignant disease. I am well aware that such a doctrine is at variance with the opinions even of many able men, who contend that it is better not to meddle with such growths by excision, and who put their trust alone in palliatives; but I cannot coincide in these views, or assent to the postulate. I have seen in very many instances the happiest results from well-timed operation, in several an immunity from return for years, and in others a total exemption from the fatal malady for life. I freely admit exceptions will arise; there are cases which present themselves to every surgeon altogether beyond his art or power to save, and which I would be just as loath to operate on as the warmest supporter of the palliative treatment. Yet I maintain there are numbers of cases permitted to become so, to assume this type, and to pass beyond the pale of operative relief, by delay and indecision on the part of the practitioner. Though I have so favourably spoken of operation in certain cases well selected, and by the sound judgment of the practitioner, I cannot conclude or dismiss the subject without forcibly urging the propriety of no rash interference when the morbid product is widely disseminated through complicated parts, for unless all contaminated be taken away, cut out, no permanent benefit can be expected to accrue.

As an illustration of what I wish to convey, the following case is most apposite: it is one of encephaloid disease of the lower jaw, implicating the glands and all the soft parts in every direction around. This cast, marked in the catalogue of my private collection No. 339, and from which the drawing Plate III., Fig. 1, was taken, shows the exact similitude of the man when I saw him, and the following are the particulars bearing upon the case:—

CASE IV.—Patient, a man aged 34 years, by trade a stone-cutter. He described the tumour as having commenced between four and five years before: it originated as “a small nodule on the outside of the lower jawbone,” behind its angle; it was accompanied from the first by intense pain, which never entirely deserted it; from this the countenance was haggard, and highly expressive of suffering; the body was greatly emaciated, and the skin tinged of a dusky yellowish hue; the pulse was rapid, 130 in the minute, and below this standard it never fell; the integuments covering the tumour were strained and tightened, ready to burst, and their coloration peculiarly characteristic of encephaloid disease, being of a purplish red colour, varying in intensity,—the most prominent parts being

deepest in shading, with a yellowish hue intermixed; and numerous large veins traversed its surface. The superficial parts of the tumour were painful to the touch and eminently elastic, while behind its composition was solid, firm, and unyielding, particularly that portion of it which lay in contact with and overlapped the mastoid process. From the solid nature of the tumour behind, remarkable changes followed; by its increase in this direction and the opposition afforded by the mastoid process, the condyle on the affected side was dislocated forwards, so that the distortion of the countenance was remarkable. The patient could not open the mouth more than a quarter of an inch beyond what is represented in the drawing, and he could not shut it closer,—as a consequence, the saliva was for ever streaming over the lip and cheek. By the unyielding mass, resisted posteriorly and mesially, the tongue was partially protruded, and could not be retained in the mouth. The trachea was considerably pressed upon, and respiration embarrassed, and the power of swallowing solids almost precluded. The circulation in the common carotid artery on the affected side was exceedingly feeble, indeed nearly interrupted altogether, from a similar cause. As premised, no operation was warrantable, and the man returned to the country, where he shortly after died, worn out by irritation and agonizing pain.

The same early operative interference, which in the foregoing cases I have contended for, where *operation is applicable at all*, becomes, if possible, *more imperative in that class of malignant diseases to which I have before directed the attention of the Society*, under the title of the "*Cancerous degeneration of warty excrescences*."

#### ON THE CANCEROUS DEGENERATION OF WARTY EXCRESCENCES, AND ITS TREATMENT.

The association between warty excrescences and cancerous degeneration has not, I conceive, met with all the careful attention from writers to which it is entitled—entitled on two grounds: first, from the frequency of the one as a sequence of the other; and secondly, from the inveteracy of the connexion when once established.

The following cases afford an exposition of the various changes brought about, from the apparently innocent verruca to the cancerous ulcer, and this again to the contamination of the system, and the springing up of encephaloid disease. To illustrate still further this subject, I shall lay before the Society numerous casts and drawings, accurate representations of

the respective changes as they were effected in each individual case, and shall conclude with a few practical deductions, warranted from the premises obtained.

CASE V.—*Warty Excrescence on the forehead, degenerating into a large Cancerous Tumour, and followed by the Encephaloid form of the disease at the angle of the jaw.*

Anne Sullivan, aged 52, applied to me for relief in May, 1850, being then suffering severely from a large, painful, ulcerated tumour over the right eye. The history which she gave goes to prove that a wart, about the size of a pea, existed above the eyebrow ever since she was a child; that eleven months previous to her seeking my advice, it became painful and itchy; that she frequently tried to pick it away in little pieces, and often pulled long shreds out of it, the separation of which was always attended with sharp pain, lasting frequently for a lengthened period after, and usually with a smart flow of blood. About this time, too, the bulk of the swelling began rapidly to increase, with a red margin round it, and soon its appearance was altered in every respect from the original condition; the warty excrescence was cast off, and a small ulcerated surface, about the size of a shilling, lay exposed, which was elevated, hard, and circumscribed, yielding a thin yellowish discharge, and characterized by persistent pain of a pricking kind, subject at different times to various degrees of intensity. Day after day the tumour continued to enlarge, spreading its base by the accession of fresh nodules, which never rose to any greater height than half an inch above the surrounding healthy parts; the integuments thus appeared to ulcerate around, the destroyed part being supplanted with firm elevations, which, in their turn, coalesced, became convex, and in this way preserved the nodulated character of the entire surface. Thus the base extended widely in all directions—upwards on the forehead, inwards and beyond the mesial line, externally, towards the temple and down upon the cheek, and inferiorly so as to involve and depress the upper lid, and compromise vision in the right eye. The extent of ulcerated surface measured round its circumference ten inches. This amount of disease, then, was hurried into existence in the incredibly short period of eleven months. The character of the sore was peculiarly cancerous, the surface being nodulated, hard, and firm almost as cartilage, yielding a discharge thin, yellowish, and watery, profuse in quantity, and emitting the peculiar odour so pathognomonic, and readily recognised by the surgeon accustomed to meet with this form of disease. Eight

months after the commencement of the disease in the forehead, a tumour began to form in the upper part of the parotidian region; it gradually came on, at first attended with most severe darting pain through the ear, up along the side of the head, and forwards towards the face, and thus averting sleep for nights, even before there was any appreciable swelling. At this time the pain she states to have been most agonizing, but it gradually declined as the bulk of the tumour was augmented. The size of this secondary growth obtains in magnitude about that of a split orange, and from its osseous boundaries its outline is not regular; it is also somewhat compressed transversely about its centre, and the upper part is more of an ovoid, while the lower portion is lobulated and spread out. The cast taken from the patient most faithfully represents the appearances of the primary and secondary formations, and the coloration of each has been very carefully preserved. (See Plate IV., Fig. 1, copied from the cast.) From a careful consideration of the phenomena attendant on this tumour, the rapidity of its growth, the character of the pain, the elastic sensation elicited by the touch, the colour of its surface, I concluded it was of encephaloid formation, and referred it to that class. With anxiety I watched this creature for some time, and in about five weeks after the cast was taken the most prominent part gave way, and a fungus shot out, never attaining beyond the size of a large fig, and emitting from its centre, at intervals of a few days, repeated arterial hemorrhages, some of them to the extent of several ounces. She struggled on in this way for two months, when she died from the debility consequent upon those frequent losses, and I regret to say I could not obtain any dissection of the body. I examined the structure of the original tumour several times with the aid of the microscope, which most clearly proved its cancerous nature. A fine section of it showed the basis to be made up of fibrous tissue, having embedded, as it were, in its structure numerous nucleated cells, many with nucleoli. The addition of acetic acid had no other effect than that of rendering more conspicuous the nuclei at the expense of almost the dissolution of the cell-wall. On subjecting a piece of the tumour to pressure, a juice could be expressed from it, yielding an abundance of cells, similar to those visible in the section, and by the addition of acetic acid were acted on with a similar result. Numerous granular bodies were also floated through the fluid. Here is a drawing of the microscopic appearances of the primary tumour, showing the arrangement of the fibrous tissue, cells, and granular bodies, which I have adverted to. (Plate

IV., Figs. 2 and 3.) The next point to be cleared up in this case was, carefully to ascertain the nature of the secondary formation, the tumour behind the jaw, and to trace out the affinity between it and the antecedent true scirrhus, by microscopic examination. After the tumour had burst, and the fungus shot out, I introduced a grooved needle into its structure, about an inch deep, then rotated it between the finger and thumb, and on withdrawing it the groove was loaded with the morbid product. This was not uniformly of the same consistence; some parts were harder than others. On placing a small portion of it under the microscope, every atom absolutely teemed with a profusion of nucleated cells, supported with the most delicate filamentous tissue. On examining some particles firmer than others, the cells were much the same, the only difference being in the compression of the cells, while those of the softer portions approximated more closely to a sphere. There were no caudate corpuscles present in this specimen. The drawing exhibits the appearance of the cells, represented under the same power as that used in the first picture. (Plate IV., Fig. 4.)

CASE VI.—*Warty Excrescence beneath the chin removed by operation; Return of the disease ascribable to the cause of contamination being persistent, and the springing up of Encephaloid Cancer in the neck.*

Jane Murphy, aged 70, a healthy-looking countrywoman, who had been mother of ten children, consulted me in January, 1849, for a small tumour situated beneath her chin, in the mesial line. She mentioned that a wart had been there from childhood, but that within the last four months it had lost its form, the irregular surface becoming smooth, its size larger, and extremely painful. She had been in the habit of frequently pressing the tumour, endeavouring to allay the pain, which often induced it to bleed, and then the annoyance, in a measure, subsided. When I first saw this patient the tumour was about the size of a marble, smooth and polished on the surface, with a semi-transparency over it, of stony hardness, and quite movable. Taking these features into consideration, together with the characteristic pain, always of a lancinating nature, the altered aspect of the part, and the period of life at which it was brought about, I was led to the inference of malignant degeneration being set up in this change, and urged its immediate removal. Coexisting with this suspicious tubercle, there was a warty growth, larger than a pea, a little above the chin, and to the left side. (See Plate V., Fig. 1.)



This, she said, also existed from infancy, never gave her any uneasiness, and exactly resembled the one beneath the chin, previous to the alteration above noticed. I removed the tumour beneath the chin in January, 1849, by two elliptical incisions, their long axis from above downwards, cutting far wide of the diseased structure, and deeper by several lines than the bed of the tumour; the wound inflicted readily admitted of being brought together from side to side, and the edges retained so by two fine needles and the twisted suture; compresses were placed beneath the ends of each needle, with a double object, to bear off any undue pressure, and to act as on the principle of the quill suture in supporting the lips of the wound at their very deepest line in contact, and thus taking the strain off the needles. So effectual was the support and apposition afforded, that union by the first intention was constrained almost through its entire track, the lower part only suppurating. In ten days after being cut, the wound was altogether healed, and the patient went to the country to her friends. Previous to her going home I urged the removal of the wart above the chin, but to no effect; she would not submit to have it done. During nine months after the operation she remained free from disease, and satisfied that a cure had been effected; about the end of this time the wart, which had been permitted to remain, began to spread and get painful. The cicatrix resulting from the former operation became tender, tumid, and ultimately gave way by an ulcerated fissure, which rapidly grew wider, yielding a profuse ichorous discharge. The destructive action progressed for about a fortnight, when a fungous growth spread around the sulcus formed in the first instance, assuming the shape of a mushroom, and the size of a crown-piece, its margin being turned over so as to rest upon the sound skin. (See Plate V., Fig. 2.) She came up to town again for my advice, and I declined interfering by operation; the grounds of objection being chiefly founded on the presence of a deep sinus leading backwards towards the line of lymphatics, parallel and beneath the anterior margin of the sternomastoid muscle. Again, the root of the disease was struck so deep, and the width of the contaminating base so widely spread, that even the most expert operator could not be satisfied that the entire was removed. Palliatives were again ordered, and she returned to the country. For many months the disease very slowly increased, but the warty excrescence was very considerably augmented, its surface having ulcerated, and the same process spread its margin, until ultimately it joined the disease, shooting upwards from beneath the chin,

the two having coalesced and become inseparably united together. During the last four months still further changes had been added: not only had the original manifestation of the disease been progressive, but two additional tumours were formed, situated one on either side of the neck, and in the line of the absorbents, manifestly of encephaloid nature. (See Plate V., Fig. 2.) Their springiness and elasticity, their coloration, and above all, the microscopic examination of their contents on exploration, pointed to, and confirmed the opinion of, their being true cephaloma. In this miserable state she endured, the gravity of the symptoms having been greatly increased; pain giving rise to the most intolerable suffering, the features being haggard and pinched, and the skin of a dull ochrey colour; debility and emaciation having made rapid progress, and all the functions of the economy more and more becoming implicated in the deteriorating influence of the disease. In this deplorable condition (in December, 1851), she went back to her family in the country to await her final release from suffering, which, to all certainty, was not far distant. Here is a cast, accurately showing the condition of the parts previous to operation in January, 1849; and here is a second, graphically illustrating the changes which have been brought about from the period of nine months after the operation, when the disease appeared in the cicatrix, with all the progressive changes up to the then date (January, 1851), an interval of fifteen months having elapsed. The painting of each has been most truthfully executed (from them the drawings referred to have been taken). I have also preserved these microscopic drawings of the primary and secondary tumours as they appeared. Here is one representing the appearance of the tumour that first showed itself beneath the chin. It exhibits a number of true cancer cells, scattered everywhere through a fibrous basis; some separate cells are also seen detached. (Plate V., Figs. 3 and 4.) This second drawing shows the arrangement of the encephaloid tumours which sprung up beneath the mastoid muscles. The structure seemed entirely composed of myriads of nucleated cancer cells, very closely resembling the secondary formation in the case of Sullivan; inasmuch as there was no caudate corpuscle in this specimen either, and the cells were held together by the finest areolar tissue. (Plate V., Fig. 5.)

CASE VII.—*Warty Excrescence behind the right ear removed in the ulcerated stage by excision, exemption from disease for eight months; Replaced by a large Encephaloid Tumour behind the angle of the jaw, and causing Paralysis of the portio dura of the seventh nerve.*

Ellen Fitzpatrick, aged 65, consulted me in March, 1850, for a large bleeding wart, placed above and behind the right ear; it was attended for some time before with repeated hemorrhages. She said it had been there for many years, never created any annoyance until about six weeks before seeking my advice. She referred the great change which had taken place in it to a bruise occasioned by a water-pail that she had been in the habit of carrying on her shoulder. Shortly after this "the wart became very sore," and soon the pain set in of intense character, darting up along the side of the head, down towards the angle of the jaw, and represented by the sufferer as "indescribably severe." On examining the part a highly irritable and inflamed base surrounded the tumour, which was of about the size of a shilling, uneven on its surface, and elevated about half an inch; it was hard to the touch, and bled upon the slightest pressure from an ulcerated line partly round it, and through its structure.

I removed the tumour with great care, cutting far wide of the base, and, as I thought, most effectually. Two arteries sprung, which required ligatures; and so free had been the excision that the edges of the wound would not permit of being brought together, yet it healed perfectly in three weeks by granulation, a soft yet polished cicatrix being left. For a period of eight months she continued quite well and exempt from all annoyance. After this time she began to complain of uneasiness behind the angle of the jaw on mastication; by degrees the part became tense, and then she felt a small tumour there; this, at the time, she believed originated from cold, and it did not alarm her, more particularly as she often relieved the urgent pain by repeated stuping. However, the swelling continued to increase so as to become perceptible; and when it attained such magnitude as to fill up the angle of the jaw, she began to suffer from the effects of paralysis of the seventh nerve on the right side. Day after day the tumour extended itself—particularly in the direction of the site of the original warty excrescence. At this time she again sought my advice, and then the case was truly a lamentable one,—a tumour, considerably larger than an orange, filled up the space between the angle of the jaw and the mastoid process, lost upwards

towards the zygoma, passing downwards and encroaching on the neck, extending behind the ear, and implicating the structures attached to the occipital bone; uneven, projecting, and lobulated on its surface; fixed, irregular, and immovable at its base. The colour of the tumour was very remarkable, and strikingly indicative of the condition so frequently associated with the proper circulation of the true cephaloma,—large veins traversed it in every direction, some of them lying, as it were, in grooves embedded on its surface; while again, numerous vessels marked the coloration in a peculiar way, constituting what might be called a number of vascular spots, from which capillaries radiated in every direction for a short distance, and ultimately breaking up in a fine ramiform distribution.

Here is a cast and drawing (see Plate III., Fig. 2) taken from the patient at this time, which most accurately show the position, form, and colour of the secondary tumour; also the paralytic condition of the corresponding side of the face, from the implication of the motor portion of the seventh nerve with the morbid product. The face is greatly distorted, and the right side is very remarkable when contrasted with the other. Upon the forehead the integuments lie flat, smooth, and at rest, there being no wrinkles or motion as on the left side. A vertical furrow is placed nearly in the centre, dividing the bulging of the muscles on the left side from the uncontracted state of those on the right, and the slip of the occipito-frontalis muscle from a remarkable prominence at the junction of the nasal bone with the frontal on the left side. The power of closing the eyelids of the right eye was lost; they remained always open; when asked to close the eye forcibly, although she made the attempt, there was not the slightest motion observed in the eyelids. When the eye was at rest, and the patient using the sound one, about half the pupil remained visible, but during sleep was completely concealed behind the upper lid. The conjunctiva of the eye was in a chronic state of inflammation, and exhibited through a lens a perfectly villous surface, permeated, in every point, with innumerable vessels. On close examination the cornea looked dull, but at a little distance presented a borrowed brilliancy from the abundant flow of tears which were constantly secreted and pouring over the cheek. The lower eyelid drooped a little, and the mucous membrane lining it presented the same vascular arrangement as that covering the sclerotic coat. The right nostril lay flat, collapsed, and not distended on a deep inspiration, but rather closed altogether, and the nose pointed towards the left side. When she blew or attempted to whistle, the air

escaped by the right angle of the mouth, the right buccinator not at all corresponding in action with the muscles of the left side, nor with that of the muscles of the chest and neck, by which the air was expelled. In mastication, the food collected in the right cheek, between it and the teeth, and the patient could not push it from its place without the assistance of the tongue, and frequently of the fingers; the saliva constantly flowed out at this side, and, when drinking, part of the fluid likewise escaped.

When the disease attained the size represented in the cast and drawing, it did not at all increase so rapidly as at first; and during the following thirteen months I had repeated opportunities of watching the course of the disease; a part of it ulcerated, a fungus shot out, and was attended with small hemorrhages. I regret to say, in January, 1852, this creature took typhus fever from an individual in the same lodging-house, and died on the tenth day. I could not obtain permission for an examination of the parts.

It may be said, the cases of cancerous degeneration which I have brought forward all occurred in patients of advanced life. In most of the instances which have fallen to my lot for observation, it was so; but I have also seen the change brought about in early age, which the following cases will testify:—

*CASE VIII.—Warty Excrescence on the forepart of the neck, above the sternum, removed by the knife; no return of the disease.*

Maria Williams, aged 19, a particularly handsome girl, of dark complexion, consulted me, in February, 1849, for what appeared a very irritable wart, situated on the fore part of the neck. She mentioned, it had been there as long as she could remember, but that latterly it had increased and become very painful, which she attributed to the pressure of her dress. The tumour, when I saw her, was of the size of a filbert, hard and irregular on the surface, which, at the highest point, was elevated about a quarter of an inch above the surrounding healthy skin; it was quite movable, placed about the centre of the depression situated above the sternum, and three-quarters of an inch from its upper margin.

The patient suffered great uneasiness in her mind from the rapidity of its increase, and the “dread of cancer,” as her mother had died of that disease, and great depression and annoyance, from the constant pain present in it.

Mr. Tagert, whom I consulted in the case, agreed with me that it was better to remove the part, a proposition in which the patient most readily acquiesced. I did so by two incisions,

one on either side, and wide of its base, meeting above and below; and then, by a few touches of the knife, lifted the tumour, in its perfect integrity, from the subjacent cellular tissue. The lips of the wound were brought together with two fine needles and the twisted suture. Union by the first intention was nearly accomplished on the fourth day, and in less than a fortnight the part was healed altogether. During the many years which have elapsed, I have several times seen this young woman, and up to the present date there has been no return of the disease, either in the cicatrix or elsewhere. I regret to say I have mislaid the microscopic drawing of the tumour cut out in this case, which I made most carefully; and more particularly so as bearing on a question about which I think a good deal of uncertainty still exists. From my notes, however, the following are the particulars:—The specimen yielded epithelial scales in various conditions and stages; some compressed together, forming laminæ, whilst those deeper assumed a somewhat square form; some of them a caudate shape; around the base there were other cells, which I at once pronounced to be cancer cells. When separated and broken up, they did not at all seem disposed to run together; they were nucleated, some with nucleoli, which, on the addition of acetic acid, were rendered more distinct, and the cell-wall was nearly dissolved; while the other cells resisted its action with impunity. I am quite sure I was not led astray here by an appearance that frequently takes place, namely, the enlargement of the epithelial cells from endosmosis.

Mr. Wardrop records a very remarkable instance of this cancerous degeneration of a wart occurring in a subject much younger than in the case which I have just related. "I had an opportunity," writes this eminent pathologist, "of seeing an example of a true cancerous sore in a girl about twelve years of age, and it is the only case of the kind which has come to my knowledge. It appeared on the lower part of the abdomen, and began in the form of a black wart on the skin. The wart ulcerated, and the surrounding skin was gradually destroyed, so as to form an immense ulcer, having all the characters of a true cancerous sore, which at last destroyed the child"<sup>a</sup>.

<sup>a</sup> Wardrop's Observations on Fungus Hematodes, p. 189.

CASE IX.—*Warty Excrescence on the inner side of the foot, removed by operation; followed by the generation of a large Encephaloid mass in the groin.*

The supervention of fungus hematodes after the removal of a large wart from the inner side of the foot, is well exemplified by the following case, which occurred in our hospital some time since:—Mary Murphy, aged 28, admitted into Mercer's Hospital October, 1846, being the second time the same year. In the preceding February she was received into the house for the removal of a large, painful wart, fully the size of a half-crown piece, and situated on the inner side of the left foot (see Plate VI., Fig. 1). It occasioned her great pain, and was so irritable that even a stocking could not be worn over it, and it was deeply ulcerated round its base. At this time there was no evidence of internal disease, and the lymphatic glands of the extremities were neither indurated nor enlarged; therefore Mr. Tagert removed the part, and without difficulty, for it had no deep attachment whatever; it was quite loose, and readily floated on the surface from the slightest touch. The wound quickly healed, and in three weeks she returned to the country. Her second admission, as above dated, was nine months after this operation, when she was received with far advanced encephaloid disease in the groin of the same side (see Plate VI., Fig. 2). The history which she gave of the tumour in the groin is as follows:—

That for five weeks after her return home—two months from the period of the operation—she was free from all disease; that exactly at this time a kernel appeared in the left groin; it continued to increase for a month, and attained the size of a small apple, when it remained stationary for a short time. Up to this period there was very little uneasiness in the part. After this the tumour began again to enlarge, with a “bursting sensation” in it. During the following months her sufferings were greatly augmented, the tumour widely extending itself in all directions, irregular and nodulated on the surface, and highly sensitive. At this time, too, just before admission, the most prominent part burst, from which she lost a quantity of blood. In this state, then, she was received, nine months after the operation, the tumour being larger than the clenched hand, accompanied by darting pains occasionally through it; but she refers an indescribable sensation of tension being always located in the upper half of it; and here, too, was a black spot, marking the site from which the hemorrhage had proceeded a few days before.

November 10th. Since her admission into hospital, the increase of the tumour has been most rapid; it is now enormous, measuring ten inches and a half transversely, and seven and a half from above downwards. Its colour is also greatly altered, being now of a dark purple and reddish hue all over. Its surface is irregularly lobulated and deprived of skin, with the elevations coated over by a semi-opaque fluid, and the depressions containing unhealthy watery pus. The constitution is sympathizing acutely with this mass of local disease. The pulse is never under 120; she has at intervals during the night profuse perspirations; her countenance is haggard, and of a yellowish hue; and all appetite is gone. One point in the upper part of the tumour is far darker than the rest, and from which point two ounces of venous blood trickled the evening before. There has been no return of the disease on the foot, but the cicatrix is very hard and firm.

13th. There was hemorrhage last night to about two ounces, but it was readily restrained by a few dossils of lint steeped in oil of turpentine and finger pressure.

18th. Had profuse hemorrhage last night; she lost nearly a pint of dark blood, to-day she is greatly exhausted, and bathed in sweat; her pulse weak, yet throbbing, and 130 in the minute; the tumour is quite black and turgid from where the blood flowed last night, and all its lobulated and broken-up surface seems a mass of sloughs; she does not complain of pain now.

19th. Is much depressed to day; at 6 o'clock in the evening bleeding began again, at first slowly, and was staunched by pledgets of lint dipped in muriated tincture of iron. In two hours after, it broke out afresh, and was perfectly uncontrollable. At this time the bleeding was frightful; it issued out in large bursts from the pultaceous, disorganized mass; when pressure was made over one point, it welled up as rapidly from under another lobe of the fungus, and so on until death threatened by hemorrhage; she was waxy pale, with violent jactitation of the arms, profuse cold sweats over the entire body; screaming for the windows to be opened, and for the admission of air. In these efforts at length all motions ceased, and though there was no appearance of life, yet the blood continued to flow for a few seconds longer, when the pulse forsook the heart, and then, death.

On examination of the body, a tumour as large as a small melon, of the same nature as that in the groin, filled the iliac fossa of the same side, intimately attached to the fascia, and implicating the muscles in this region. The iliac artery and vein



ran through its base, and below Poupart's ligament the femoral artery and vein were surrounded by the encephaloid structure situated there. This pathological condition may account for the fact of the total uselessness of pressure over either of the trunks in arresting the fatal hemorrhage. On slitting up the artery and vein through their entire extent as they traversed this diseased mass, I could not, by the closest examination, find any solution of their integrity; vessels of considerable size, both arteries and veins, however, could be discovered through the structure, with their opened up and patulous extremities. These were very numerous, and evidently the source from which the blood issued in such quantities. The patulous condition of the arteries, as well as the veins, I ascribe to the matting of the coats of the vessels with the surrounding tissues, and thus neutralizing their contractile power. The softer parts of the tumour on section exactly resembled the brain in a state of decomposition.

**CASE X.**—*Warty Excrescence on the inner side of the knee extirpated, and followed by Fungus Hematodes in the groin on the same side.*

The late Mr. Palmer, of this city, had a case very analogous to the one just particularized, a short time before under his care in Mercer's Hospital. The patient was a young woman, only twenty-four years of age; she had a flat, painful wart on the inner side of the knee; it was there for years, but having become very irritable and ulcerated, and bleeding from the least injury, she solicited for its removal; it was taken away by the knife, and the part healed favourably. She returned to the hospital in five months after, the glands in the groin of the same side being enormously enlarged, and all the structures in the inguinal region participating in the encephaloid degeneration. This creature died before the end of the seventh month, after operation, of repeated and profuse hemorrhages.

**CASE XI.**—*Warty Excrescence on the cheek, imperfectly excised, followed by replacement in the cicatrix, and afterwards successfully extirpated.*

Mary Purcell, aged 52, admitted into Mercer's Hospital, April 13, 1854. She states that a "wart" had been on her right cheek for many years; that about two years before the above date, the part became "very painful, with darting stings in it." So troublesome had it become, that she applied to a surgeon, who at her urgent request removed it by the knife. The part healed, but in six months after this operation a somewhat

similar growth made its appearance in the cicatrix; this new formation was more painful and tender than the original one, and the painful sensibility of it increased until her admission to Mercer's Hospital. When she came under my care the tumour was not larger than a small marble, and situated in the centre of the cicatrix resulting from the operation performed before. It was an elevated tumour, about half an inch above the surface, with a persistent, dull pain, and occasional darting stings through it. On the 19th of April I removed the entire by two elliptical incisions, carried far wide of the hardened base, sweeping away the irregular jagged cicatrix resulting from the former operation, and having executed all satisfactorily, the edges of the wound were brought together and maintained so by two needles and the twisted suture<sup>a</sup>.

22nd. Removed the needles, and left the twisted thread, steadying it in its position by collodion.

24th. Took away the threads, and the edges of the incisions were most accurately united throughout.

26th. So perfect is the union, scarcely a trace of the line of incisions. On the 6th of May the patient was dismissed perfectly cured.

It affords me pleasure to state that this patient has remained perfectly exempt from any return of the disease in the cheek or elsewhere, up to the present time, January, 1856. At this very date she lies in hospital, owing to a severe wound running into ulceration, over the right tibia, caused by accident. On the closest examination of the cheek, a fine line or seam is merely perceptible, marking the extent of the wound made by me.

**CASE XII.**—*Large Warty Excrescence, covering several inches over the lumbar region, successfully operated upon.*

A gentleman, aged 58 years, consulted me in November, 1854, relative to a large warty excrescence situated over the left lumbar region; it had existed from childhood, and for many years remained the size of a small bean; however, during the last three it began to enlarge slowly, to spread out, and latterly to expand over the healthy integuments like a mushroom; pain likewise was a constant attendant, and gradually increased with its growth; its surface was uneven, lobulated, and around its base was a fine line of ulceration, yielding a fetid ichor; on carefully examining this tumour, which now attained the

<sup>a</sup> For the most effectual method of applying the twisted suture, see Dublin Quarterly Journal, February, 1856, page 34.

size of a crown-piece, but of an oblong form in all its bearings, I at once decided upon excision, but hesitated about its immediate performance, as diffuse inflammation was raging as an epidemic, and seized upon almost every case touched with the knife. The gentleman, by my directions, returned to the country. In the middle of December he again came to Dublin, and on the 15th I removed the tumour by very free incisions, their long axes being oblique in relation to the body. My intelligent pupils, Mr. Richard Danniell and Mr. Simmons, the latter (I deeply regret to say) since dead, assisted me in this delicate operation. By careful dressing and constitutional management, all irritation was subdued, and a reparative process set up and preserved to the healing of the part. The gentleman returned to the country on the 12th of January, 1855, perfectly cured; and a few days since I had the pleasing gratification to learn that he remains entirely free from any return of disease, with his general health far better than it had been for years before.

Now these cases which I have given are examples of only one condition of the skin preparatory to ulceration and malignancy; that is, where there exists an indurated warty tumour; and this I conceive to have a cancerous tendency *ab initio*. The small growth may be unproductive of inconvenience for years, until irritated, as illustrated in many of the cases which I have adduced; then the characteristic pain, sharp and lancinating, never entirely deserts it; ulceration sets in, making breaches around its base, and proceeds to the detachment of the warty surface. During this time a thin fluid exudes from underneath; hard, firm granulations are thrown up from an indurated base, not rising very high, yet presenting a mammillated surface, far denser than the interior of the projecting nodules. The destructive process, which I have endeavoured to portray by the foregoing cases, presents to the inquirer two very striking characteristics, and essentially belonging to it—first, that when once the ulcerative process is set up, there is never any amelioration, ever so temporary, no attempt at cicatrization; and, second, the great liability of the appearance of encephaloid disease, either in the site of the original tumour, or in the line of the absorbents returning from its position. Here, then, are two marked differences as to results between it and the condition to which the term *noli me tangere* is applied, and to the *destructive ulceration* most accurately described by Dr. Jacob. Of this latter disease I present to the Society this highly painted cast, to contrast with those I have already ex-

hibited. It shows well the characteristics of the disease, as recorded by that gentleman. In this instance, though nearly half the scalp was destroyed, though inroads had been made by the disease to a considerable extent on the side and posterior part of the neck, the ear nearly detached, large vessels exposed, coated by small granulations, and sealed up against the passage of blood—yet, I say, with this amount of ulceration and death of parts around, the neighbouring glands did not participate in or suffer contamination.

In the cases Nos. v., vi., vii., xi. and xii., the germ of disease lay, as it were, innocuous; its malignant tendency did not manifest itself until a very advanced period of life, at the respective ages of 52, 70, 65, 52, and 58;—while in the cases Nos. viii., ix., and x., it was ushered into existence at a much earlier age—19, 28, and 24; while in Mr. Wardrop's case, the subject, a little girl, was only twelve years old.

It is remarkable, too, that once the ulceration was fairly established in the primary tumour, true encephaloid disease rapidly sprung up, either in its site or in its immediate locality, with the exception of cases Nos. viii., xi., and xii., successfully extirpated. Again, in every instance which I have recorded, all the changes were brought about more speedily, and death followed more quickly in proportion to the age of the patient.

The inferences deduced from the results of these several cases relative to treatment point to the practical precept of early extirpation; we have evidence of its beneficial result in cases Nos. viii., xi., and xii., where, though ulceration with its characteristic attendant symptoms had just manifested themselves, the parts were excised, the wounds healed, and there has been no return of disease, though a period of several years has elapsed.

In cases Nos. vi., vii., ix., and x., the operation, I conceive, was had recourse to after the lymphatics and capillaries were charged with the product of the cancerous alteration; and though, in some instances, the wounds readily healed, yet, in a short time, the secondary results, the effects of the absorption, manifested themselves in the form of encephaloid disease. So firmly convinced am I of the line of treatment to be adopted in these cases, I would advise that all warts, when situated on the face and elsewhere, should be removed by the knife as early as possible, no matter how youthful the patient may be, as they all have a tendency, in advancing years, to degenerate in the manner which I have endeavoured to represent and elucidate.