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CASES OF CARCINOMA OF THE EYE, WITH REMARKS.

By JOHN WINDSOR, Esq., F.L.S.,
Surgeon to the Manchester Eye Hospital.

[Read before the Manchester Medical Society,
February 7, 1844.]

GENTLEMEN,—I have been induced to communicate the following cases, with a few remarks appended, to the consideration of the society, as they appeared to me somewhat calculated to exhibit or confirm the propriety of the earliest attention of the surgeon being directed to a very important form of disease.

I have no intention of, nor indeed, materials for, entering upon an inquiry into the nature of carcinomatous affections in general, the various types they assume, the parts they are most disposed to attack, or the most approved modes of combating them as they develop themselves. My aim on the present occasion is simply, and I fear very imperfectly, to describe one form of malignant disease or carcinoma, as it occurs in the human eye.

The first case I wish to relate, illustrative of this affection, occurred in the person of Elizabeth Wrigley, aged sixty-one years, and residing near Oldham. She followed no business, but only attended to her household affairs. She was admitted an out-patient of the Manchester Eye Hospital, August 20, 1839. Her general appearance was somewhat cachectic, and she appeared to be of a very timid disposition. A tumor, about the bulk of a large pea or small hazel-nut, projected from the conjunctiva, in the situation of the caruncula lachrymalis and valvula semilunaris. She first perceived it, as a small speck, about four months ago, and it has since gradually increased to the size above mentioned. She was at this time merely directed to bathe the eye frequently with the alum collyrium, to apply a little zinc ointment at bed-time to the edges of the palpebræ, and to take a purgative pill occasionally.

Sept. 7. She again presented herself at the hospital, and, as the tumor appeared rather enlarging, I thought it best to excise it, which I endeavoured to do as effectually as possible. She was desired to drop upon the eye a little olive oil three or four times a-day, to bathe it with the lead lotion, and to continue her pills occasionally. On examining the small tumor removed, it was found to be of a firm texture, and reddish color.

10. The eye appears to be doing well, and is not inflamed.

The next note does not appear until 1840.

July 10. The tumor of the ocular conjunctiva re-appeared a week or two after the excision. Escharotics, as cupri sulphas, argenti nitras, and once

potassa fusa, were occasionally applied, but, being of a highly timid and nervous habit, she bore them badly. The tumor, extending along the whole upper part of the conjunctiva, was again excised, as much as it well could be, and then the surface was touched with the nitrate of silver. In a few weeks it again re-appeared, gradually extending over and obscuring the cornea and the whole anterior surface of the eye, projecting now, indeed, from the orbit, a little over the upper part of the cheek. An enlarged gland is now distinctly felt on the face, just anterior to the ear of the affected side. Her general health seems more enfeebled, but nothing prominently wrong in it has yet been perceived. To continue her medicines.

Nov. 9. As she had not been lately able to visit the hospital, I went over to the neighbourhood of Oldham to see her. I found her in a state which forbade any hope of relief from the operation of extirpation of the eye-ball—an operation often proposed to her in the earlier period of her disease, but always declined. She was very weak and emaciated; her lower extremities œdematous; she was altogether much worse, and evidently sinking. The tumor was now about the bulk of a moderate sized apple, but divided, as it were, into two lobes, by an intervening fissure, the larger lobe towards the temporal, and the smaller one towards the nasal, side; no trace of eye now visible; the surrounding integument, especially towards the nose, was contaminated, being thickened, somewhat tuberculated, and discolored; the enlarged gland in front of the ear somewhat larger, and very hard; a similar one is also now felt, just under the angle of the jaw. The ocular fungus, ulcerated, is kept clean by frequent ablution, and dressed with simple lard. She takes opiates occasionally to ease her sufferings, and aperients as required.

In a few weeks after the last report she died. I was not able to be present at the post-mortem examination of the body, which was made by Mr. Leach, of Waterhead Mill, near Oldham, but have been favored by him with a note on the subject. He says, "I removed the whole of the tumor, intending to dissect it, but it was one mass of cancerous matter. There was no appearance of an eye in the tumor; the crystalline lens was either absorbed or had escaped, and there was no trace of the eye left, except a piece of the sclerotic and choroid coats, about half an inch square. I emptied the orbit, and was surprised to see pieces of the supraorbital plate come out with the diseased mass; I fancied that necrosis had taken place in this bone from pressure. Mrs. Wrigley's friends did not wish to have the examination carried further, and consequently I was unable to see whether the anterior lobes of the brain had become implicated in the disease."

The above case affords, perhaps, a fair specimen of the gradual but regular progress of carcinoma of the

ocular globe to its fatal termination, as it seemed to be only very temporarily checked, if checked at all, by the remedial means employed in the vain attempt to remove it by excision, and escharotic applications. This is not the only example I have seen of such a result in this formidable disease. I well remember seeing, in the early part of my life, a relation of my own (John Chapman, residing at Settle, in Yorkshire) gradually sinking under the influence of fungoid carcinoma of the eye.

It is very likely that no means, short of the extirpation of the whole eye-ball, will be found sufficient for the removal of the disease; but, with timely recourse to this, I am induced to believe a successful result may be generally anticipated.

I will proceed to relate, in favor of this opinion, the two following cases, which have occurred rather recently in my hospital practice:—

Peter Durbabin, aged thirty, a healthy-looking laborer from the country (Hulton, near Preston Brook), was admitted an out-patient of the Manchester Eye Hospital, November 13, 1841, with symptoms somewhat resembling those of iritis, which were speedily relieved by leeches, blistering, pills of calomel and opium, purgatives, and a lead lotion.

Jan. 8, 1842. He called again. For some weeks there has been a hard, prominent tumefaction around the lower circumference of the cornea, and encroaching a little upon this membrane, yet he retains tolerable vision with this eye, and the other is unaffected. About a month since I passed the point of a lancet into the swelling, but no fluid, except a drop or two of blood, followed. To-day, by means of a tenaculum (the forceps slipping) and curved scissors, I removed the swelling, which appeared to be formed of a somewhat firm, adipose, or gelatinous-looking substance, deposited between the conjunctiva and sclerotica, distending the former, and thus forming a resisting tumor, but, when removed, looking and feeling much like fat. He was directed to bathe the part occasionally with tepid saturnine lotion, to apply zinc ointment to the edges of the palpebræ at night, and to take a purgative powder occasionally.

April 23. Since last report he has called a few times at the hospital. The tumor has become again more prominent than before, and occupies the whole inferior part of the conjunctiva, but he can still close his eye. He has occasionally aching and lancinating, or pricking, pains of the part, recurring at uncertain periods, sometimes several times a-day; at others he feels very little or nothing of them. The surface of the tumor is now a little irregular, presenting the appearance of small tubercles, one or two of which are ulcerated. The iris of the sound eye is of blueish-grey color; but, in the affected one, this is variegated with a whitish brown, perhaps from deposit of lymph or fibrine. He can ascribe no cause for the complaint, except it may have been struck occasionally with small fragments of stones in breaking them. He had tolerable vision with this eye until a little time after Christmas.

May 7. Since he last called there is an evident increase in the bulk of the tumor, which presents now very much the fungoid character.

After consulting with my colleagues present, Dr. Robinson, Messrs. Hunt and Walker (present also

some visitors, Dr. Chaytor and others), I determined, with the consent of the patient, to remove the eye, which was effected in the usual way. I made a small incision through the integuments at the external canthus, to afford more room; in doing this a small arterial branch spirted out blood, but the hæmorrhage soon ceased. I separated the eye from the conjunctiva and the muscles, first below, and then round the orbit, dividing the optic nerve behind. Moderate bloody oozing followed for a time; a little lint was placed over the orbit, supported with adhesive plaster and a light handkerchief. He took fifty minims of tincture of opium in peppermint water immediately after the operation, and in two hours afterwards thirty minims more.

8. The pain from the operation soon abated considerably, but he had another opiate at bed-time. He slept occasionally in the afternoon, and nearly or quite all the night. To take two purging pills along with the anodyne draught at bed-time, and a purging draught to-morrow morning.

10. He has had very little pain or uneasiness since last report. On removing the dressings, the part was looking very well, except a slight fulness and discoloration of the superior palpebræ. Tongue clean; bowels regular; pulse natural. To have the part dressed with resin cerate spread on lint, and a light bandage.

20. Has been going on very well in all respects, and is going out of the hospital to-morrow. The orbit seems to be nearly filled with granulations, but there is still a slight purulent discharge. It is covered with a little calamine cerate on lint.

28. Called to-day, and is going on well.

July 30. He appeared at the hospital to-day, looking well, and says that since last report he has been able to follow his occupation as well as before his eye became affected. He has no feeling of uneasiness in or about the orbit, which seems to be quite free from disease, the palpebræ having sunk a little within it. This is the last report of this case; and, as he promised to inform me if anything particular occurred, and has not called again, I conclude that he continues free from any relapse of the disease. On examining the eye after its removal, the tunics on the anterior part appeared converted into a scirrhous or gelatiniform mass, of some thickness, and of nearly uniform appearance. The interior of the eye was partly disorganised, and the natural appearance destroyed, but the posterior part was little if at all altered in structure. Indeed, in this case the disease was situated chiefly in the anterior, but in the following in the posterior, part of the eye.

The next case is that of Elizabeth Jackson, from Blackburn, admitted a patient of the Manchester Eye Hospital, January 27, 1843. Her age is about fifty-four; she is married; appears to be a person of quiet temperament; is of a somewhat florid complexion; her general health appears to be tolerably good, and her habits of life regular. Her right eye appears much swollen, and projecting from the orbit. The cornea is still distinguishable, but in a dull sloughy state. The surface of the ocular conjunctiva, and of the sclerotica is not even, but irregular, from three or four prominences with corresponding depressions, the whole presenting a red projecting

mass, but, as a considerable part of it is covered by the superior palpebra, which last is reddened and elongated, it is not well seen until this is raised. Both the palpebræ appear to be sound, although at first sight one might suppose the superior one to have two or three small tumors upon it, but, upon a more particular examination, this is found to be owing to the above-described unevenness of the subjacent ocular surface. She complains of much pain both of the eye and head; of the former she has suffered much pain for nearly nineteen months, of the latter for about the last fortnight, but since then so severe as to prevent her obtaining almost any sleep at night. Pulse 84; tongue clean; bowels regular; appetite but indifferent for the last five or six weeks, and since that time she has been unable to perform her usual domestic occupations. It will be nineteen months, she says, on the approaching 6th of February, since inflammation and pain first seized the eye; from that time she has experienced what she calls a "working" in it without intermission. About seven months previous to that time she discovered that she had quite lost the use of the eye, without any previous pain or uneasiness, or any sensation of black muscæ, flashes, sparks, or colors. The vision of her left eye is good for her age. It is only, she says, about eight or nine weeks since the eye began to project so much outwards. She has been attended by an intelligent professional gentleman, Dr. Marsland, of Blackburn, but the remedies used have had only a palliative influence.

Though in this case the disease was in a considerably more advanced state than in the preceding one, and, therefore, the result of an operation more doubtful, yet, seeing no prospect of any permanent relief from any other means than extirpation of the globe, and a speedily fatal termination without it, I did not hesitate to recommend her assent to it, which was given.

Jan. 31. In the presence of my colleagues, Messrs. Barton, Hunt, and Walker, and of some others, I removed the diseased globe from the orbit; the latter appeared to be sound. On making a vertical section of the eye or diseased structure, immediately after its removal, it presented a rather dense structure, disposed in several lobules, homogeneous, and much resembling inspissated mucus, or firm jelly. The great bulk of it was situated posteriorly, and was closely connected with the globe, the component parts of which were moderately distinct, but somewhat diminished in bulk, probably by the pressure undergone from the enveloping morbid mass, which itself might perhaps have originated in a carcinomatous charge or deposit in the cellular membrane of the orbit or outer parts of the eye.

On more particularly examining the part removed, I found about two-thirds of an inch of the optic nerve remaining attached to the removed mass; of this portion of nerve, the posterior or cerebral end presented a natural firm texture, but the anterior or ocular end had lost all nerve-like appearance, and hence probably arose the early occurrence of the amaurosis, in this eye, from the carcinomatous deposit on this point at the very commencement of the affection. The globe itself, which was almost completely enveloped by the morbid texture, especially

posteriorly and laterally, and, indeed, only formed about a fourth or sixth part of the bulk of the tumor, being, as already observed, probably somewhat atrophied from pressure, presented the sclerotica in almost a natural state, but the conjunctiva seemed to have undergone a kind of pulpy thickening; the choroid could be traced, though a good deal changed, being thickened and friable when seized by the forceps; there was no distinct trace of retina, or of the humors of the eye. The muscles and tendons of the eye could be only imperfectly traced.

Feb. 1. Says that she feels decidedly easier now than she did before the operation, both as to her head and eye. There is a slight bloody oozing from the orbit. She had some sleep in the night after an opiate draught; pulse is quite calm; tongue clean; stomach tranquil; bowels regular.

Feb. 2. Has been going on favorably. On removing the dressings this morning, the palpebræ looked well, and closed up the orbit externally.

3. Complains to-day a little more of her head, and did not sleep much last night; has taken no anodyne for the last two nights; pulse 84; tongue moist and clean; appetite indifferent; the palpebræ are a little swollen; on separating them slightly, some bloody serum was discharged. A little lint only, secured by a few strips of plaster, applied; to have an effervescing draught two or three times a-day.

4. Slept better last night after an opiate pill; head easier; no feverish symptoms; bowels regular.

13. Has been going on well, without fever, and with very little pain; the palpebræ also look well, and have lost their former injected appearance. There is a little discharge still from the orbit. Her husband having coming over from Blackburn this day, she was allowed to return with him.

March 14. Heard that she was going on very well.

April 4. She came over to the hospital. The palpebræ appeared slightly tumid at their edges, but there was no appearance of any return of tumor in the orbit, from which, however, there is occasionally a little puriform discharge; the pain of the head does not now trouble her; she looks, sleeps, and eats well, and appears in good spirits.

June 6. By a person from Blackburn I received information that she was going on very well, and quite free from any appearance of disease.

Nov. 1. I received a similar report.

REMARKS.

It appears to me that the three cases attempted to be narrated above, are examples of the scirrhus form of malignant disease—the scirrhus of Dr. Carswell—the *cancer gélatiniforme*, or *aréolaire*, of Cruveilhier, for the matter effused is oftenest like firm jelly or glue; and hence the term colloid or glue-like tissue is also sometimes used by Laennec; sometimes, also, there is a whiter variety of it, and for this the term lardaceous has been applied.

After the scirrhus stage has continued some time (it may be even permanent, as I have seen in the uterus), ulceration often follows, and it is then more particularly that it takes on the form of fungoid carcinoma.

The cases here related tend to prove, and the records of medicine, I doubt not, furnish many similar ones, that the disease, though considerably developed, may

be successfully attacked by the knife as long as the surrounding parts and the adjoining glands have not become contaminated; for experience too well demonstrates that there is in this disease a power of generally inducing in the surrounding parts a participation in its morbid influence, and thus gradually extending its formidable ravages.

With regard to the other forms of malignant disease, to which the eye, like other organs, is subject, viz., fungus hæmatodes or encephaloid cancer and melanosis, there is ample scope for making remarks, particularly with regard to the former, as it generally occurs in the earlier periods of life, but I have already perhaps trespassed too long on the time and patience of the society to permit any further extension of this paper on the present occasion.

Before concluding, I should wish to remark that the Manchester Eye Hospital was established in the centre of this populous district about the early part of the year 1815, Mr. Wilson being then appointed surgeon, and the late Dr. Hull physician, to the institution. Mr. Barton was soon afterwards appointed a second surgeon, and a year or two afterwards I was appointed a third surgeon. On the retirement of Mr. Wilson from the office about twelve or fourteen years since, two assistant-surgeons were appointed, Messrs. Hunt and Gordon. After the death of the last gentlemen, Mr. Walker succeeded him, and Dr. Robinson succeeded Dr. Hull. Our patients annually are about 1,500 to near 2,000 in number.

LIGATURE OF THE FEMORAL ARTERY.

TO THE EDITORS OF THE PROVINCIAL MEDICAL JOURNAL.

GENTLEMEN,—I was much interested in the perusal of Mr. Jesse's excellent observations on Hæmorrhage after Amputation, in a late number of your valuable publication. The two following cases, which have recently occurred in this institution, fully corroborate his views, viz., that in hæmorrhage from the thigh, when it is found necessary to secure the femoral artery, the ligature should be applied above the origin of the profunda. If that had been done in the first case, there is but little doubt that it would have prevented the necessity of resorting to a second amputation.

I remain, Gentlemen,
Your humble servant,
R. DIX, House Surgeon.

Derbyshire General Infirmary,
Feb. 22, 1844.

CASE I.—John Noon, aged twenty-two, by trade a joiner, was admitted into the hospital April 24, 1843, with strumous disease of the left knee. As the malady continued to increase, and his health began to suffer, it was deemed advisable to remove the leg above the knee, which operation was performed, by means of a double flap, a fortnight after his admission. He went on very well until May 15, the ninth day after the operation, when hæmorrhage from the stump took place, which was restrained for a time by pressure, and the constant application of cold; but it occurred again at intervals on the following day; and

at one o'clock, a.m., on the 17th, to such an alarming extent that life was almost lost. Under these circumstances, after he had rallied, it was judged best to tie the femoral artery; this was effected a little below the profunda. Four days afterwards the bleeding again returned profusely, and it was necessary to amputate the limb two inches above the first site of operation. From this period he went on well, and was discharged cured July 17.

CASE II.—John Whitney, a shoemaker, aged seventeen, was admitted November 27, 1843, having disease of the left knee-joint of five years' duration. As he came into the hospital for the purpose of having his leg amputated, the operation was performed ten days after his admission. The stump had nearly healed, and the last ligature came away on the 30th of December; this was followed by hæmorrhage to a considerable extent. After trying the usual means to suppress the bleeding without effect, the femoral artery was tied in the groin above the profunda. From this time he continued progressing towards recovery, and left the infirmary on the 16th instant quite well.

OBSERVATIONS

ON THE

TREES AND SHRUBS PROPER FOR OUR PROPOSED NATIONAL CEMETERIES.

By ROBERT DICKSON, M.D.

*Conservative Power of Vegetation illustrated—
Exceptions in Coniferous and some other Trees—
Application.*

TO THE EDITORS OF THE PROVINCIAL MEDICAL JOURNAL.

GENTLEMEN,—The perusal of an article, which appeared a few weeks since in your valuable Journal, on intra-mural sepulture, suggested to me the following reflections; and should you deem them worthy of a place in your columns, you will oblige me by inserting them.

I remain, Gentlemen,
Your obedient servant,
ROBERT DICKSON, M.D.

5, Curzon-street, Mayfair,
Feb. 26, 1844.

In the Observations on Mr. Chadwick's Report on Interments in Towns (Provincial Medical Journal, January 6, 1844), it is proposed, as a remedy for the manifold evils of this custom, that national cemeteries should be provided at proper distances from the metropolis and other large towns. As a very important part of the economy of such cemeteries, it is recommended to keep the ground covered with a thick turf, and planted with shrubs and trees; it being added, "the purifying effects of vegetation on the air are well known." The general truth of this statement is unquestionable, but in its practical application it needs some qualification, since, while certain plants exert a purifying influence over the atmosphere, increasing the proportion of oxygen, others, by diminishing its amount, exercise a hurtful power. As it is chiefly plants of the latter kind which are selected for the ornaments of the resting-places of the dead, I propose to offer a few hints to assist in guiding the