Clinical Lecture

ON

ANCHYLOSIS, CARCINOMA MAMMA, DISEASED BONE, &c.

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GENTLEMEN,—In a former lecture I stated that I had only amputated twice for disease of the knee-joint since I have acted as surgeon to this hospital. I believe that I have succeeded in procuring ankylosis in every other case in which the disease could not be arrested before the joint was obliterated. There is now in the hospital a good illustration of this result. The patient in this case is an Irishman, aged thirty-nine, who was admitted under my care on March 14th, 1854. He had suffered from some disease of the joint for three years. During this period he had been at different intervals under the care of an hospital surgeon, getting better when under treatment, and going back as soon as he left the hospital.

On admission his knee was very much swollen; the swelling was pale, characteristic of ulceration of the cartilages, and hence its familiar title, white swelling. He could bend it partially, but with great pain. He suffered from a constant distressing gnawing sensation over the external semilunar cartilage and corresponding head of the tibia, where there was a lump, distinguishable from the fluctuating swelling of the rest of the joint. During his sojourn here under my care he had eleven issues, made with *potassa fusa*, and to this constant repetition of the caustic I attribute his recovery. I do not believe that there is so much advantage from the *suppuration* which follows the removal of the eschar as there is from the counter-irritation primarily excited by burning. As a general rule, I prefer, therefore, the repetition of it to an issue kept open with peas. He has not been in the hospital the whole of the time since March, as he was presented during my short absence from town in August by one of my colleagues, who found him so much better that he thought the joint quite sound. A few days' labour, however, brought him back, when I was obliged to have recourse to counter-irritation. This time I used the seton, as there was very little space for another issue. The knee is now free from pain, and with the assistance of crutches he can get about very well. The two joints are nearly the same size, and the limbs nearly the same length. The tibia is slightly flexed, and in a direct line with the femur. He is to leave the hospital on Tuesday next.

In the above instance, the limb is ankylosed in such a position that it will be very useful to him. Sometimes it happens, either from want of attention on the part of the surgeon, or such severe constitutional irritation accompanying the progress of the disease as to prevent his retaining the limb in a right direction, that the leg becomes ankylosed at such an angle with the thigh that the foot scarcely touches the ground, and at the same time the leg is twisted out of the straight line. If such cases come before you, they must not be considered hopeless. If the disease is entirely gone, and the joint obliterated, you may break through the ankylosing bands, and straighten the limb. Many of you will remember a successful case of this kind last summer, but as some of you did not see it, I will read you the notes briefly.

Thos. B——, aged twenty, cheesemonger, was admitted under my care on the 19th of June, 1855. His left knee is perfectly fixed and immoveable; the leg is bent upon the thigh, so as only to allow the toes to touch the ground. The foot and leg are not in a straight line with the thigh, but twisted outwards, so that the deformity is very considerable. The patella is adherent to the external condyle. There is no pain, tenderness, or swelling of the joint; but the limb is quite useless to him. The history is, that this condition of the joint followed an attack of acute inflammation, which was treated during a sojourn of twenty-one weeks in a metropolitan hospital. His general health is good.

In my first examination of this joint I thought that the division of the hamstring muscles would materially assist me in straightening the limb, as they were in a state of great tension; but when he was placed completely under the influence of chloroform, this disappeared, and a true osseous ankylosis

alone retained the leg in its false position. This bony ankylosis was, with some force, completely broken through, and the rending asunder of the bones was distinctly audible throughout the theatre with a loud crack, and the limb was straight. After his removal to bed, and before he had completely recovered his consciousness, the limb was firmly bound to a long back splint, with a foot-piece, such as we use for fractured patella. Ordered, cold lotion over the knee; calomel, two grains; opium, one grain, immediately. — Evening: Complains of the tightness of the bandage; otherwise, his leg is easy. The bandage was loosened.

June 24th.—The following day there was a little swelling in the situation of the joint, but not much; no pain in it since the bandage was altered; pulse 90; skin rather hot; tongue furred; bowels costive. To have a black draught immediately. Now you will naturally be astonished to hear of so little local mischief—of so little constitutional disturbance—after such violence, for violence it was, though necessary for the object to be attained.—Evening: The bowels not opened. Repeat the aperient.

25th.—Free evacuation of the bowels; had a good night; says his knee feels very comfortable; pulse 84; no thirst; tongue foulish; appetite good; knee rather swollen.

26th.—Ordered the leg to be readjusted on one of Liston's tin splints, in a slightly flexed position.

27th.—Less swelling of the joint; a little ecchymosis on the inner side of the knee; bowels open; less pain.

28th.—Tongue clean; pulse quiet; no heat of skin; knee easy; swelling abated; appetite good; and sleeps well.

July 12th.—Since last report he has gone on well; has been confined to bed. The knee has been free from pain; and there has been no constitutional disturbance. To-day, that is, nineteen days from the date of the operation, the splint was altogether removed. He has not much power in flexing the leg himself; but I can do so to a limited extent. There is no pain or tenderness in the joint. In about a week from this date he left the hospital quite well, with a very useful limb.

I have lately had an important, anxious case in private, in which there was necrosed bone requiring an operation for its removal. The case was interesting, in the first instance, as one of those severe compound fractures affecting the wrist-joint which our forefathers used almost invariably to amputate; and, secondly, it was interesting in showing the value of the simple operation in cutting short the tedious and debilitating process of exfoliation.

On June 20th, 1855, I was called down to see R. D——, aged fifteen, who had fallen from a tree, about twenty feet from the ground. The nurse, who was sitting in the garden, saw him fall; she says he pitched head foremost, with his left arm extended. This was driven by the force of the fall into the ground, as shown by the hole in the earth, and the stains of blood. I was there about an hour after the accident, and found him with the hand extended backward, the radius protruding through a wound in the skin on the anterior face of the forearm, just above the wrist-joint. He was pale, but collected, and not suffering so much pain as might have been expected. He was a high-couraged, determined boy. Dr. Elliott, whom I met in consultation, then put him under the influence of chloroform, while I endeavoured to replace the bone by forcibly flexing and drawing down the hand, the forearm and upper arm being fixed; and though I was assisted by two strong men, I could not succeed in doing so. Fearing the consequences to the wrist-joint, already seriously injured, I determined to remove the end of the radius by means of the metacarpal saw. This was accomplished without difficulty, taking away a piece about the eighth of an inch in thickness. After this I was able to return it with ease. The extremity of the portion removed was not covered by cartilage, though it had the form of the base of the radius; the accident therefore was, strictly speaking, a fracture through the epiphysis. It was completely denuded of periosteum. I placed it supine on a well-padded splint prepared beforehand for the purpose. This was secured with a roller, leaving the wound on the front of the forearm bare; the whole was laid on a pillow, with a bladder of ice, in contact with the wound, suspended from the bed above.

June 20th, Ten P.M.—Restless and feverish, complaining of some pain about the elbow, but not much in the wound. Ordered Battley's solution, twenty minims; calomel, two grains; compound rhubarb pill, five grains.

21st, Half-past Four.—Did not sleep much; has been wandering, talking rather wildly, but immediately recovers himself on being spoken to. He is naturally a very excitable boy. Tongue furred; pulse rapid. To take carbonate of ammonia in an effervescing mixture.

22nd, Nine A.M.—Had rather a better night. Removed the splint, and replaced it with a similar one. Wound looks healthy; no erysipelatos inflammation round it; less pain.

23rd, Three P.M.—Decidedly better night; quite rational; no wandering. Had the Battley's solution, twenty minims, as before. Less pain, bowels open, tongue clean and more moist. Has taken a little chicken for dinner. To continue the effervescing ammonia, and the opium if he does not sleep.

24th.—Much the same, motions offensive; restless. To take two grains of calomel, and one grain of opium, at night.

25th.—Has had a very restless night; motions more natural; erysipelatos inflammation up the arm; bullæ at the elbow; wound bulging, suppuration commencing; tongue red and clean; aphthæ in the mouth; very irritable; appetite bad. To leave off the effervescing ammonia, and to take quinine, one grain, and dilute sulphuric acid, ten minims, twice a day; lead lotion to the arm; continue the lint and cold water with the ice; morphia, quarter of a grain, at six P.M.

It is not necessary to continue any daily notes, as the case went on pretty well, notwithstanding some suppuration at the upper third of the arm, which it was necessary to relieve with an opening. At the beginning of November, finding that the original wound would not heal, the granulations having that unhealthy glassy appearance indicative of diseased bone beneath, I determined to examine it with a probe. This examination detecting exposed bone, the patient was narcotized with chloroform, and the whole of the lower end of the radius, about an inch and a half long, removed. This piece of necrosed bone was easily detached; it was thin and eroded. I have no doubt that the periosteum had been stripped of fat at the time of the accident; or rather, that the bone was detached from the periosteum, which, being left in the arm, will generate new bone, and that a useful arm may still be obtained. I have, however, impressed upon my patient the necessity of moving his fingers as much as possible every day. At present he has very little power over them, but this will come by use. I consider it of the greatest importance that union should be averted between the tendons and the developing bone; and as soon as the space left by the removal of the dead bone is more filled by the living, I shall commence the motions of pronation and supination, otherwise all use of the wrist-joint will be lost. As long as the sequestrum remained, it was hardly possible for the flexor muscles to act; the sharp edge of it lay completely across the path of these tendons.

Jan. 1st.—All the wounds are quite healed.

The next case that I must have some conversation with you about is one of those horrible instances of sprouting cauliflower cancer which the surgeon is occasionally called upon to remove, in compassion for the distressing condition of the patient. This form of cancer has been called by some writers the soft cancer, in distinction to scirrhus, or hard cancer; by others, carcinoma medullare, or brain-like cancer; fungus hæmatoides, or bleeding fungus. It is that form of malignant disease which is more certain to return after an operation than any other; yet, notwithstanding this, it is often our duty to operate, not with the hope of saving life, but with the certainty of removing a loathsome mass, which makes life wretched. In many of these cases, the operation prolongs life, though not to the natural period of man. The rule which I have found, on the whole, the most safe and judicious, in regard to amputation of the breast for malignant disease, is this—to operate in all cases in which your advice is sought in the early stages of growth, before the surrounding glands are implicated, and the patient's health not so much impaired as to render the immediate effects of the operation dangerous;—to operate in cases like the present, where the growth of the disease is more rapid than the inroads upon the health of the sufferer; where a loathsome mass goes on sprouting, bleeding, ulcerating, discharging, and sloughing, to the infinite disgust and distress of its victim; where there appears no prospect of death putting a speedy end to her agony; and where the powers of life are so unequivocal that the operation does not threaten any immediate danger.

The cases in which I would not operate are those cases of scirrhus, stony cancer, which have been advancing slowly, silently, and painlessly for years, without much observation or anxiety on the part of the patient, and without any knowledge on the part of the friends; where a mass has gradually been formed, implicating not merely the whole mamma, but also the glands in the axilla, and sometimes the glands above the clavicle; attached to the pectoral muscle, and even to the intercostal muscles and ribs, before the surgeon sees it at all. In such instances, it is no charity to operate. The disease often remains dormant for years, or it extends inwardly, with

little outward ulceration; the patient at last sinks gently into the grave, from the constitutional depression of the disease, and not from a local drain. I would not operate when the patient is old and feeble, when the immediate effect of the operation is doubtful.

When the patient, whose case I am about to relate, first came into the hospital, the disease had advanced so far into the axilla that the removal of the whole of it was out of the question, and her pallid countenance, worn features, and general appearance of debility seemed to preclude the idea of amputating such an enormous mass of active disease without extinguishing the vital flame. However, as her sojourn with us was prolonged, so her general health improved; but the disease advanced with rapid strides, till at last I could not in charity resist the desire to relieve her by one broad cut, believing, and the event has proved I was right, that I could do it without endangering her life. One of our old physicians here, I think it was Dr. Fordyce, said "thank God for opium!" May we not indeed say "thank God for chloroform" in such cases as this? The operation was performed without her knowledge, and she slept the same night better than she had done for months, and she has now a healthy wound instead of a festering mass of corruption. Having once determined to operate in this case, I could not for a moment think of postponing it to our usual day.

It is a good rule in all large hospitals to have a regular day for the performance of operations. It brings the surgeons together; and while the patients have the wisdom of a multitude of counsellors, the pupils do not miss the instruction which they have come up to London to receive. But there are cases which humanity forbids to bend to this arrangement, and this was one of them. I will now proceed to give you a few details of this case, which is reported by Mr. Wood:—

Eleanor P—, aged forty-four, married, was admitted on August 15th, 1855, under the care of Mr. Solly. She has had eight children, all of whom she has reared by the breast. Her last confinement was on May 16th, 1854, and her breast was then quite well. She suckled her child. About last Christmas she first perceived pain in the axilla and shoulder, very similar, she says, to cramp, and it used to come on about seven P.M. When the pain came on her husband used to rub her shoulder, and she fancied it did her good. She next perceived that when she ran up- or down-stairs it caused pain in her left breast. The same was induced by any exertion, causing her breast to move about. During this time she was suckling her child. The pain in her shoulder gradually became worse, extending down her arm, preventing her from sewing; the pain in her breast also became aggravated, hurting her not only when exerting herself, but also when she was still. She says that on feeling her mamma there was no defined tumour, but the whole breast was larger, felt soft and elastic, and she thought it had something to do with her suckling. In June last she became an out-patient of this hospital, the symptoms above stated having in the meantime much increased. Her breast was larger, had the same feel, and the skin covering it was not in the least discoloured. A fortnight afterwards one of the dressers made an opening into it with a lancet, and placed a bit of lint in the wound; no pus or other fluid escaped, and the lint was removed next day. She then went to Margate for a month. The wound in her breast did not heal, but a fungous mass began to sprout out of it. She then put herself under medical care, and in about a fortnight was so ill as to be unable to walk. The day after she returned home another fungus sprouted from the opposite side of her mamma, and the day before her admission they coalesced.

On admission, the diseased mass was larger than a tea-cup, and presented a true specimen of malignant disease. Her axillary glands were enlarged. The discharge was thin and very copious, saturating her linen, and smelling very offensively. Occasionally hæmorrhage would take place from the surface, generally to no great quantity, but once it was very profuse. The pain was constant, very severe, destroying sleep, extending all over the shoulder and down her left arm. Her general health was bad, no appetite, profuse sweats, great languor and debility. She looked cachectic, and had an expression of countenance peculiar to her malignant disease.

The treatment consisted of quinine, with morphia at night, to procure sleep. She then took the chloride of bromine, in doses of a quarter of a grain, but without relief, and subsequently cod-liver oil, with increased doses of morphia. Opium lotion was applied topically; also Arnott's apparatus for compression. Chloride of soda lotion, to cure the offensive smell, sometimes on lint, sometimes in a poultice. She was placed on full diet, and then on mixed, with wine, brandy, eggs,

beef-tea, &c., as she best fancied. In spite of all this, the fungus increased to several times its size on admission, the pain became, if possible, worse, and the discharge more profuse, and she again became weaker, and more worn down by the disease.

Under these circumstances, Mr. Solly thought it best to remove the entire diseased mass, not with the hope of curing her, but simply to relieve her from her agony and the profuse, foul discharge, which, soaking her linen, made her miserable and loathsome.

Nov. 14th.—Having obtained the patient's consent, Mr. Solly to-day removed the whole of it, making his incision in the surrounding apparently sound skin, and dissecting it off the pectoralis major, which was, however, clearly infiltrated by cancerous deposit. Hæmorrhage was profuse, and seven or eight arteries were secured. The operation was performed under chloroform, and she was carried to bed in an extremely weak state. One grain of hydrate of morphia to be taken immediately.—Five P.M.: After wandering for a little time, from the continued effects of chloroform and morphia, she fell asleep, and awoke refreshed. Her skin is now warm, and her pulse has somewhat rallied. She has vomited since the operation, and she still feels very faint. Wine, one ounce.—Nine P.M.: Circulation restored, and she feels very comfortable. Repeat morphia. Wet lint to wound.

15th.—No pain on the breast or arm; slept well; complains of pain across the epigastrium.

16th.—Pain in the region of the liver, and a tumour can be felt there, very tender, extending across the right hypochondrium to the epigastrium; its lower border is well defined; bowels costive.

17th.—The lint placed on the wound after the operation cannot be removed, as it adheres so firmly to the surface.

22nd.—Put her under the influence of chloroform, and removed the lint adhering to the surface of the wound, it being found next to impossible to do it without, as the attempt caused her such agony; sleeps well; tumour in the abdomen about the same; bowels open.

24th.—Tumour in the abdomen larger and more tender, especially in the epigastric region; wound looks very healthy; bowels very costive. To have an enema at night, composed of two ounces of decoction of aloes. To have fish to-morrow morning.

26th.—Bowels well opened; tumour in the epigastrium smaller; liver feels enlarged as before; sleeps well, but is troubled by earache.

28th.—Wounds looks very healthy; complains of more pain in the epigastrium, accompanied by tenderness and soreness of that region; bowels not opened since the discontinuance of the enema; appetite good. Repeat decoction of aloes at night.

30th.—Bowels open every day; tumour in the epigastrium smaller, and less uneasiness; wound looks very healthy, beginning to cicatrize.

The progress of this case since the operation up to the present time amply justifies its performance. I am now sorry that I did not operate on her sooner after her admission. I know that the disease is not eradicated, but I hope that it will take an inward course, which is far less distressing to its victim, and the liver seems to be the seat of it. The chloride of bromine has been recommended as a specific in cancer. I have only as yet tried it in two cases, but in neither have I seen any beneficial result. In some cases, I have thought that Dr. Arnott's apparatus has retarded the growth of this disease, and that in open cancer it has rendered the ulcer less offensive. On the whole, I have, however, been disappointed in its effect, and I seldom employ it now in any case.

In the performance of these operations, you must not attempt to save much skin with the idea of getting the wound to heal rapidly with the first intention. When the disease returns externally, it is generally on the skin which forms the edge of the cicatrix, looking as if we might have prevented it if we had taken a little more of the integument. You must also be very careful to dissect the pectoral muscle very cleanly; do not leave any cellular tissue over it. In making your first incision, remember that you make it below the mamma, and then the blood flows away from your knife, so that you see each tissue more distinctly as you expose it. Examine carefully the surface of the wound, in order to satisfy yourself that you have left no palpable piece behind. Also make a section of the tumour. This enables you to see if you have removed a circle of healthy cellular tissue beyond its margin.

These cases, in private practice, are the most disagreeable and unsatisfactory that you can have to do with. Of course, your conduct will be guided alone by a strict sense of duty:

you will neither be tempted to operate on account of the fee, nor tempted to refuse on account of the discredit which follows in consequence of a return of the disease. You will calmly consider what is on the whole best for your patient, swayed neither by her fears or those of her friends, nor by the prejudices of the practitioner in attendance, if such there be to contend with. It is most important that the patient herself should not know all your fears and all your doubts; it is most important that one or more judicious friends should know your real opinion. In these melancholy cases the husband is seldom the person who can be trusted. Fortunately for us, as no man living can say positively that the disease must return and must be fatal, we are justified in giving the sufferer the benefit of the doubt, particularly when hope itself may be the means of prolonging, if not of saving, life.

THE TURKISH HOSPITAL AT BALACLAVA.

By J. N. RADCLIFFE, Esq.,

OF THE BRITISH MEDICAL STAFF ATTACHED TO THE OTTOMAN ARMY.

There is a cluster of wooden huts, situated in an almost central position within the lines, on the heights west of Balaklava. The huts are twenty-eight in number, and they formed the general hospital of the Ottoman force in and about the Chersonesus, until the removal of that force to Asia Minor. They are placed on a knoll at the head of the ravine which opens out near the centre of Balaklava, and the situation is well adapted for hospital purposes. There is every facility for drainage and cleanliness; numerous and abundant springs of excellent water are in the vicinity; and the neighbouring heights shelter the huts, in a great measure, from all but north-easterly winds.

The huts are of British construction, and their walls and roofs are built of "half-inch" planks; the roofs have also, with few exceptions, a waterproof felt covering. The large huts, twenty-four in number, are thirty-two feet in length; eighteen feet in breadth; seven feet in height to the pitch, and twelve feet to the apex of the roof. Each of these huts has two windows—one being placed at each extremity. The windows are three feet square; they are elevated seven feet above the floor; and the sashes are glazed and move on a transverse axis. There is a single door to each hut, and it opens in the majority of them to the south—the huts being arranged so that their longitudinal axis is almost directly north and south.

Within each hut is a central pathway, three feet in width, which runs from end to end; and on each side of this is a wood flooring, raised six inches from the ground, and seven feet and a half in width.

The huts are placed very close together, the intervening spaces not measuring more than six feet; and each hut is trenched round, but in a very imperfect manner, for the trenches are not sufficiently deep, they have no communication with each other, and no outlet on the slope of the hill; and, in consequence, the ground about the huts during rain becomes a mass of soft mud.

The huts have been erected and used as an hospital about nine months. During the hot season the wood warped and cracked considerably, and it became difficult to exclude wind and rain. The huts swarm with rats and mice, the square beneath the flooring giving every shelter to these pests; and the walls, within and without, are neither painted nor whitewashed.

The four smaller huts are of stronger and better construction than the larger ones. They are about ten feet square, and are painted externally. They were occupied by the resident physicians and by sick officers.

Each of the large huts accommodated fourteen patients; and to each hut was attached two orderlies, who lived and slept in the hut of which they had charge. No bedsteads were used, the patients being placed on good flock-beds, of about four inches in thickness, which were laid upon the wood floor. These beds were covered with a kind of cotton, which was thick, white and soft; and each bed was provided with a sheet of the same material and a warm white coverlid. Additional covering might be had, if required; but as each patient had his heavy uniform overcoat with him, this was rarely necessary. The beds and bed-linen, and indeed the patient's dress generally, were kept wonderfully clean; and the principal portion of the materials being white, the aspect of the occupied huts was in general neat and satisfactory. The bed furniture