

in order to lessen the irritative fever that the removal of the diseased bone is desirable. The constitutional irritation which these acute diseases of bone produce (I mean acute periostitis, acute necrosis, and osteomyelitis) is very nearly akin to pyæmia, and very frequently results in secondary deposits and death. Without presuming to dogmatize on a point so little understood, I think there is a reasonable probability that the sequence of symptoms depends somehow on the acute suppuration in or around the bone, and that by the removal of the latter we shall remove the source of the fatal mischief, and the channel by which the infection passes into the system. The operation, however, must not be lightly undertaken; for even in favourable cases it requires a long incision, and must be attended with a good deal of bleeding: hence it is not to be undertaken till the profound prostration which accompanies the early stage of this terrible disease has passed over.

The second advantage of subperiosteal resection which I would point out is that it avoids the embarrassment of future operations. If the whole of the affected bone can be removed (of which, however, we can only be perfectly sure when, as in the case before us, the whole shaft is extracted), we may be certain that no further operation will be required. Portions of the new bone which at the time of the operation were left adhering to the periosteum may, it is true, perish; but, if so, they will exfoliate, and all that is required is for nature to fill up the large gap left by the removal of the bone, which in children is rapidly effected. How different is this simple process from the complicated and difficult series of operations which are often required before a large mass of invaginated dead bone can be extracted from the interior even of a bone so superficial as the tibia! What large incisions, what trephinations, gougings, cuttings, and scrapings, are necessary before the operation is finished! How rarely does one operation suffice even to remove the mass which is in sight! How often do smaller portions exist, buried deeply in the invaginating case, which escape detection so long as the larger sequestrum remains, but which prove sources of abiding disease and difficulty afterwards, till successive operations have hunted out every fragment of dead bone! I forbear to dwell on the risk of the death of the new bone, which sometimes follows on the rude handling to which it is necessarily submitted; on the surgical complications to which the patient is so repeatedly exposed (as erysipelas, secondary hæmorrhage, phagedæna, &c.) from the repeated operations; and on the comparative frequency with which, in the end, amputation is found necessary. Bearing in mind all these things, however, I think we are justified in believing, at least till further experience has corrected our judgment, that a treatment which substitutes one simple operation for a number of very complicated and bloody ones must give the patient a better chance of life and limb.

Lastly, I will mention the greater rapidity of the cure, in favourable cases. After subperiosteal resection, when the bone is completely reproduced the case is at an end. In the expectant treatment, when the separation of the old bone and the reproduction of the new bone are complete, the operative part of the case commences; and after the termination of the whole operative process, there is still a good deal to do in the way of filling up the cavity and healing the wounds. Thus in the case of subperiosteal resection before us, the whole duration of the disease, from its first onset to its final close, might be put at about nine months. In a somewhat similar case, of which I have notes, which occurred at St. George's Hospital, and in which the disease was much less extensive, eleven months had elapsed before the case had advanced far enough for the first operation; and the limb was even then so unsound that a very trifling accident produced fracture, and amputation became necessary.

The special drawbacks to which the operation is fairly exposed are, as far as I can see, two: (1) the difficulty which may occur, in cases of limited necrosis, in getting away the whole of the diseased bone; and (2) the danger of shortening of the limb.

First, with regard to the difficulty of removing the whole disease. When, as in my present case, the whole shaft is involved, it will usually, I believe, separate readily from the epiphyses, and no such difficulty will be experienced. But if only a portion of the bone be diseased, it may be very difficult to separate the periosteum at the limits of the diseased part, so as to get beyond the latter. I should, however, expect that any small portions of necrosed bone accidentally left behind would exfoliate before becoming embedded in the new shaft, and so would require no further operations.

The second is, I think, the most serious drawback to the present operation. When, as in Maisonneuve's cases, the ope-

ration has been delayed till it comes more nearly to the ordinary extraction of a sequestrum it seems that no shortening follows; but when soft parts only are left in the wound, shortening is, if not a constant, at any rate a very common result. Thus, in a case operated on by Langenbeck for gunshot fracture, and in which, thirteen days after the injury, about four inches of the shaft of the tibia, and a portion of the fibula, about an inch in length, were removed, the limb was shortened an inch and three quarters on the patient's recovery.* So also Dr. Neudörfer, in speaking of subperiosteal resection after gunshot fracture, in the last volume of Langenbeck's Archives, says that he has had twelve cases of resection from the shafts of long bones, in which the patients have recovered; and that in none of these, in spite of the most careful preservation of the periosteum, did the regenerated bone reach either the length or the circumference of the original. These patients, however, were adults; and in children the reproductive power may be, and probably is, more active. Thus in my case, though the length was deficient, the whole bulk of the new bone does not appear to be so. A plausible explanation also of the shortening in my case is at hand—in the abscess near the knee, and the probable destruction of the tibio-fibular joint. Had we been alive to this danger, I think it quite possible that a more sedulous attention might have maintained the proper length of the limb. Still there is no doubt that there is considerable risk of shortening in all cases, and particularly when copious suppuration has taken place around or in the knee-joint. It will be most interesting to watch the limb as the child grows. It is a very useful one at present; but we can hardly tell what the process of growth during the next eight years may be. Fortunately, we have every prospect of keeping our patient under observation.

Allowing that in some cases subperiosteal resection may be risked in the early stage of acute periosteal abscess, are there many parts of the body in which the attempt can be made? In the tibia the operation is easy, and the fibula remains as a support to the limb and a safeguard against shortening (though, as the present case shows, not a completely trustworthy one); so it would be, and to a greater degree, with the fibula itself if it were the seat of the disease; so also with the radius and ulna. But how the attempt would succeed with the femur I can hardly presume to guess, and the femur appears to be even more subject to the affection than the tibia. The bone, however, is at a great depth, and the limb would be left frightfully unsupported after its removal. Still I can imagine circumstances where I should be disposed to undertake the operation even on the femur; and with the humerus the attempt would perhaps still more often be justifiable were the humerus as subject to the disease as the femur is.

Without presuming to recommend the course which I pursued in this case for imitation in any similar one, I think it is worth putting on record as an instance of the great ease with which the tibia may be removed, and the rapidity with which a substitute will be provided.

Queen-street, Mayfair, March, 1866.

TWO SUCCESSFUL CASES OF OVARIOTOMY.

By C. H. MARRIOTT, M.D., F.R.C.S.,
SURGEON TO THE LEICESTER INFIRMARY.

CASE I.—L. P.—, who was sent to me by my friends Mr. Whitchurch and Mr. Barwis, of Melton Mowbray, was admitted into the Leicester Infirmary on the 1st of December, 1863. She is thirty-nine years of age, single, a household servant. Her parents are living and healthy; no special disease on either side of the family. The patient reports that about five years ago she suffered from prolapsus uteri, followed in a year afterwards by hardness and enlargement of the bowels. The swelling was uniform over the whole abdomen, and gradually increased to its present size. She has had no pain till the last two months, and then it has been in the right leg and thigh; both legs have occasionally been much swollen. The catamenia have been regular till about two months ago.

Present condition.—The patient is rather below the average height, of nervous temperament, face pale and anxious, with pallid complexion; extremely emaciated; papular eruption more or less over the whole body; moves with difficulty; re-

* Berliner Klin. Wochens., Jan. 23rd, 1865.

spiration considerably affected; the heart and lungs normal; the abdomen enormously distended, measuring at the umbilicus forty-one inches and a half; fluctuation perfect; dulness over the whole front; intestinal note at the flanks; both legs and thighs cedematous, the right more than the left; great pain in the right leg and foot; the uterus pushed down to the entrance of the vagina; the os uteri the size of a pinhole.

Dec. 19th.—Tapped an inch and a half below the umbilicus. Thirty pints and a half of pale-greenish limpid fluid were drawn off, containing a large quantity of albumen; specific gravity 1010. Examined microscopically, it showed blood-corpuscles, granules, and some spherical granular cells not containing nuclei.

21st.—No substance to be felt in the abdominal cavity; the uterus in its normal position.

26th.—Sent to her home in the country for two months.

Feb. 23rd, 1864.—Re-admitted. She looks much better, has gained flesh considerably, and is able to walk about with ease. Her appetite is very good; and she is in excellent spirits. Pulse 96. Measures at the umbilicus thirty-three inches. Abdominal parietes can be moved over the tumour except close to the point where she was tapped. Percussion at the upper edge of the tumour is dull, and is not altered by a full inspiration. The uterus is forced downwards and backwards nearly to the entrance of the vagina; percussion on the tumour over the abdomen is felt by the finger in the vagina. The catamenia appeared three weeks ago, natural in time and quantity. The urine contains lithates, but no trace of albumen or sugar. Owing to a troublesome cough the operation was deferred till March 21st.

Operation.—Half-past twelve: The room was heated to 75° Fahr. Chloroform being administered, an incision four inches and a half long was made from a point two inches below the umbilicus to an inch and a half above the symphysis pubis. By a little careful dissecting the abdominal cavity was opened, and the cyst showed plainly, being of a whitish colour. The hand was now passed through the wound, and easily broke through some adhesions over the left front between the parietal peritoneum and the cyst; no further adhesions could be felt. A large trocar was plunged into the cyst, and after about two pints of fluid had escaped, the trocar slipped out; but as the cyst had been partially withdrawn, none of the fluid found its way into the abdominal cavity, and the instrument was instantly replaced. The cyst was easily drawn through the incision. The pedicle was short and two inches wide. A double ligature was passed through it, and the cyst cut off about half an inch above it; the stump was drawn outside the abdominal cavity. Three deep silk sutures were passed from within out through the peritoneum the whole thickness of the parietes. Four superficial ones were added. A small clamp was then fixed on to the pedicle. The intestines were just seen once or twice, but were easily kept from protruding. Half-past five P.M. (four hours and a half after the operation): Has been slightly sick once. Has taken no food. Inclination to pass urine; catheter used, and seven ounces drawn off. To have a little brandy and arrowroot. Pulse 80. Nine P.M.: Feels sick; has not slept. To take a quarter of a grain of morphia; two minims of dilute hydrocyanic acid, and half an ounce of water.

March 22nd.—Half-past nine A.M.: Pulse 72. Slept moderately well; sick once in the night. No flatus has passed per anum. Urine to be drawn off three times a day. To have a little iced brandy and water occasionally, and to suck ice *ad libitum*. Nine P.M.: Pulse 76. At half-past seven P.M. vomited more than a pint of green bilious fluid after feeling sharp pain in the stomach for an hour before. Ordered, beef-tea, four ounces; brandy, six drachms: to be injected every three hours, and ten minims of Battley's sedative solution to be added when the pain is severe.

23rd.—Half-past nine A.M.: Pulse 80. Has had a comfortable night. Face pinched and drawn; had severe griping pain at six A.M., followed at seven A.M. by bilious vomiting; slight hiccough; abdomen tympanitic; bears moderate pressure without pain; wound healthy. Two P.M.: Pulse 92, small. Vomited again at half-past eleven A.M., and at the same time a moderate quantity of sero-sanguinolent fluid was discharged through the centre of the wound. Ordered one minim of creasote in a pill every two hours. Nine P.M.: Pulse 96. Was sick after the creasote, and was ordered three minims of tincture of opium in a teaspoonful of brandy and a teaspoonful of water every two hours. Vomited again at half-past seven P.M.; hiccough less violent; tympanitis increased since morning.

24th.—Ten A.M.: Pulse 100, fuller and less compressible. She vomited at half-past one A.M.; and at half-past four A.M.

(sixty-four hours from the operation) passed a large quantity of flatus per anum for the first time, soon followed by two small liquid motions. Hiccough has ceased; abdomen notably less tympanitic; countenance more natural.—Half-past nine P.M.: Pulse 92. She vomited green bilious fluid at half-past eleven A.M.; the bowels acted again at half-past twelve. Catamenia came on very freely in the afternoon. Increase brandy to one ounce at each injection.

25th.—Pulse 100. She has passed a comfortable night. Four upper sutures (two deep and two superficial) removed, and a strip of plaster put across; wound healthy. To have injection and medicine every four hours, and to take a table-spoonful of beef-tea by the mouth.

26th.—Pulse 96. Slept well. Bowels opened twice. She complains of pain at the clamp; there is a slight blush and swelling around and below it. Two other sutures removed.

27th.—Pulse 96. She passed a large feculent motion yesterday. There is considerable discharge of pus from under the clamp. Injections cause pain: to be given every eight hours.

28th.—Pulse 92. Injections to be discontinued. Clamp removed (seven days). Skin red and swollen, and excoriated from the pressure, which, owing to the great distension of the abdomen, had been very considerable.

29th.—Pulse 92. Appetite good. To have boiled sole for dinner. From this date she improved rapidly.

April 2nd.—Ligatures in the pedicle removed (twelve days). The lowest of the deep sutures was also taken away. It had been so drawn inwards as to be entirely out of sight before; it had cut its way out of the right margin of the wound, but was still deeply imbedded in the left. Scarcely any irritation was caused by it.

17th.—Wound healed. Patient allowed to get up (twenty-seven days).

29th.—Catamenia appeared on the 26th; natural. Ceased to-day.

May 10th.—She has taken regular walking exercise for the last three weeks, and now feels quite well and strong. Discharged cured.

This patient called on me a month ago (one year and seven months after the operation). She was looking remarkably well, and stated that she had been for some time past living in London in active service as housekeeper, and that her health had not been so good for many years.

CASE 2.—F. S—, aged fifty-two, single, native of Leicester, was admitted on Dec. 3rd, 1864. Parents were healthy, now dead. No special disease on either side of the family. One sister died of general dropsy; but the bowels were not specially, if at all, swollen. Patient has had no illness except those of infancy, and variola when three years old, of which she now bears the marks. Five years ago she noticed a uniform swelling of the abdomen, not more on one side than the other. At this time her urine diminished in quantity, and the catamenia, which had been regular up to this time, ceased, and has never returned. Her general health was good, and she suffered no pain.

In April, 1864, I first saw her, and tapped her. One large cyst was emptied, and about three gallons were drawn off. Some solid growths were now felt, and seemed to be immovably fixed in the left iliac fossa.

Sept. 2nd.—Tapped again, and twenty-eight pints drawn off. The solid growths were then noted as follows:—Solid growths slightly enlarged, but decidedly not adherent; diagnosis, intra-cystic growths.

Dec. 23rd.—Tapped a third time, and twenty-six pints drawn off; also a smaller cyst, about the size of a cricket-ball, was tapped, and about twelve ounces of fluid drawn off. Growths not large, and perfectly free to be moved in all directions; fluid highly albuminous.

27th.—Feels comfortable and improved in general health; made out-patient.

Jan. 17th, 1865.—Readmitted. Feeble in strength, and face pallid. Ordered generous diet, and citrate of iron three times daily.

24th.—Pulse 84, small. Measures at umbilicus 38½ inches; skin movable over tumour. On a full breath being taken, the hand laid on the abdomen can feel a grating as the cyst moves against the abdominal parietes. Percussion dull at the upper limit of the tumour; becomes of an intestinal note when a deep inspiration is taken.

26th.—The urine having been drawn off and chloroform administered, the operation was commenced by making an incision five inches long, beginning about an inch and a half below the umbilicus. The peritoneal cavity was soon opened, and the cyst showed plainly, of a dead opaque white colour.

Several ounces of ascitic fluid now escaped. In the vicinity of the wound the cyst was free from adhesions, but, owing to its great distension, I could not pass my hand around it. Feeling pretty sure that it was free to be removed, I at once tapped it, without further enlarging the incision. From the great distension, the fluid was forced by the side of the trocar and flowed over the pubes and legs, but I doubt if any actually got within the pelvic cavity, as a sponge was instantly placed below the canula. After the greater part of the fluid had flowed out, the cyst was entirely withdrawn; but many smaller ones showed, unemptied; two, in particular, sprang from the very bottom of the pedicle, and these were tapped. The pedicle was now seen to be made up of the left broad ligament, with the Fallopian tube lying right across it, and the uterus continuous with its right border. The pedicle, as may be imagined, was extremely short—so much so that there was great difficulty in fixing the clamp, there being only just room to apply it between the Fallopian tube and the uterus; when this was done, it dragged so that the fimbriated end of the Fallopian tube protruded out of the wound, and the lower end of the clamp rested with great force on the symphysis pubis. Four deep sutures were put in, as in the first case, and a superficial one near the top of the wound. In spite of these, the fimbriated end of the Fallopian tube pushed through at the extreme lower limit of the wound, and lay on the abdomen. To obviate this, it was pushed back into the pelvis, and held there with a director, whilst another suture was applied as low down as possible. During the operation, which lasted about half an hour, the patient vomited several times and became very faint. Afterwards she was placed in bed on her back, with pillows under the knees and hot bottles to the feet. Ordered a teaspoonful of brandy occasionally, and a grain of opium as a suppository if pain should come on. Pulse 72, very small. The cyst, when opened, showed thousands of small cysts, some single, but many clustered one within another so as to make a solid tumour; when cut through, greyish glairy fluid exuded. Between the cysts was a considerable solid growth bearing a close resemblance to a honeycomb. After the cysts were emptied, it weighed altogether exactly two pounds avoirdupois. — Six P.M.: Pulse 84; has vomited once; suffers great pain at bottom of wound. Three grains of opium pill to be taken directly as a suppository. Nine P.M.: Has vomited about a pint of watery fluid with brown flakes in it; still great pain at the clamp; does not like the brandy. To have a tablespoonful of tea occasionally, which she is very anxious for, but nothing else by the mouth. To have the following injection every three hours: strong beef-tea, two ounces; brandy, two drachms; and Battley's sedative solution, ten minims, to be added whenever she suffers much pain.

27th.—Ten A.M.: Pulse 88. Has slept well, and had three injections with Battley's sedative solution in them during the night. Feels very little pain; no tympanitis, but some tenderness in left groin. Urine cannot be passed naturally; to be drawn off three times in twenty-four hours. — Nine P.M.: Feels comfortable.

28th.—Ten A.M.: Pulse 100; slept well. At seven A.M., felt pain at the lower part of the wound. Considerable tympanitis; no flatus passed per anum; no sickness; wound united by first intention in its greater part; three upper sutures removed, and strips of plaster applied. Increase the beef-tea to four ounces and brandy to half an ounce in injections every three hours. — Ten P.M.: Pulse 112 to 116; feels less pain. Increase brandy to six ounces.

29th.—Pulse 112; slept well; bowels acted slightly, and some flatus passed at the same time; tympanitis not increased; clamp lies lengthwise on the incision.

30th.—Pulse 100; clamp lifted slightly, and found to press a little to the right of the line of incision; has taken a few grapes.

31st.—Pulse 88; bowels acted again yesterday afternoon, and twice in the night; has passed a little urine naturally twice in the night; has taken a little beef-tea and about one ounce of brandy.

Feb. 1st.—Pulse 104. Allowed a teaspoonful of port wine occasionally; bowels open three times.

2nd.—Pulse 104; has eaten a small piece of fish to-day; clamp removed, and likewise the remaining sutures (seven days); stump of pedicle greyish colour, with bright spot of granulations in its centre; wound united deeply, but granulating healthily at the skin level; tympanitis still very considerable, especially at the upper part of the abdomen. To have injections every four hours.

3rd.—Pulse 100; vomited at half-past six P.M. yesterday,

and was much collapsed after it, for which she was ordered one ounce of brandy and three ounces of beef-tea every three hours as injection.

4th.—Pulse 92; tympanitis greatly decreased. Injection every four hours.

5th.—Pulse 88; has passed a true feculent motion, the first since the operation, all the others looking more like beef-tea than real fæces; abdomen normal in size. To have injections every six hours.

6th.—Pulse 92.

7th.—Pulse 88. To have chicken to-morrow, and to discontinue the injections.

March 9th.—In good spirits; appetite excellent; wound healed, except one spot of granulations where the pedicle was. Allowed to get up and walk about.

23rd.—Wound thoroughly healed.

I saw this patient about a month ago, and she is perfectly well and strong.

Leicester, March, 1866.

A Mirror

OF THE PRACTICE OF MEDICINE AND SURGERY IN THE HOSPITALS OF LONDON.

Nulla autem est alia pro certo noseendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

KING'S COLLEGE HOSPITAL.

A CASE OF PROGRESSIVE LOCOMOTOR ATAXY.

(Under the care of Dr. JOHNSON.)

THE two patients whose cases we subjoin, and who were under treatment at the hospital at the same time, furnish examples of "progressive" affection of the nervous system, the symptoms of which, however, presented most important differences. As regards Dr. Johnson's patient, it will be seen that he had the characteristic symptoms of that form of palsy, if it can be called palsy, which has been much discussed within the last few years by Duchenne and others, under the name of "ataxie locomotrice." This disease had until recently been included in the class Paraplegia; but in well-marked cases there is no actual paralysis of the muscles, but loss of power to guide them. The patient is obliged to "lean on his eyesight as on crutches;" and if he shuts his eyes he stops, and sometimes falls. We have heard it stated by one hospital physician that it is needless to give a separate name to this class of symptoms. The term, however, marks out well enough a clinical group of symptoms, if it does not define a pathological entity. Mr. Lockhart Clarke has given (in THE LANCET of June 10th, 1865) an account of the changes in the cord of a patient who had been under the care of Dr. Hughlings Jackson for locomotor ataxy. The posterior column was the part diseased.

We are indebted to Mr. Kelly, house-physician, for notes of the cases.

H. A.—, aged forty, unmarried, admitted Jan. 1st, 1866. From boyhood up to five years ago he was engaged in the cod-fishery off Iceland, and thus for a greater part of the year was much exposed to wet and cold. He does not know of any others being attacked in the same way, although working under similar circumstances. Rather more than four years since, he first noticed numbness and loss of power in the left hand, which soon became permanent; then a sense of weakness came on in the left leg. When going upstairs, he could hardly lift his foot the height of the step. Soon afterwards his gait was altered, so that he seemed to walk as if he were tipsy. He had no marked pain, but at various times has had "rheumatic pains" in his extremities. Involuntary twitchings of the legs came on when he walked, especially on a cold day.