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REPORT OF SURGICAL CASES OCCURRING IN THE CHELTENHAM HOSPITAL, FROM 1830 to 1840.

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Dispensary Department of the Hospital.

(Concluded from p. 120.)

CASES.

AMPUTATION OF THE THIGH.

J. Tanner, aged 40, a man of sober habits, was admitted into the hospital Feb. 9, 1838, under the care of Mr. Eves. There was a wound on the outside of the knee joint, which admitted the fore finger readily, from which the synovial fluid escaped freely; the femur was smashed, and the fracture extended to the upper third of the thigh; there was a considerable effusion of blood beneath the integuments upwards and downwards, which increased the bulk of the limb (naturally large); no pulsation in the anterior or posterior tibial arteries was perceptible; the nervous system was much shocked.

Operation.—The femoral artery being efficiently compressed by Mr. C. Fowler, Mr. Eves proceeded to remove the limb, by making two lateral flaps, and sawing the bone a few inches below the trochanter; some delay in securing the bleeding vessels took place: as they had retracted, the femoral and another large artery only were secured. Very little blood was lost. He was put to bed faint and exhausted. In the evening he vomited, and brought up a large quantity of undigested food. Muriate of morphia, in full doses, was given him at intervals during the first three days after the operation. The bowels were opened on the third day by house physic. It would be tedious to note the daily progress of this case; it is sufficient to observe that the constitutional disturbance was very great, the pulse remained at 120. The stump was dressed on the fourth day, but there was no attempt at union, and it wore a sloughy aspect. On the seventh day there was observed a small quantity of arterial blood in the dressings, which continued several days. This occurrence was viewed with alarm. On the sixteenth day several sloughs had separated, the system being supported with a moderate allowance of animal food, wine, ammonia, and morphia. On the seventeenth day, a little oozing of blood was observed in the evening, but as the amount was small, little attention was paid to the circumstance. The following day (being near the hospital) I was sent for, a considerable hæmorrhage having taken place. This I effectually arrested by pressure on the groin. Mr. Eves directed

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moderate pressure to be kept up, and cold applied during the night. These means were perfectly successful in putting an end to the bleeding, and under great care, notwithstanding the very profuse discharge and extreme sloughing, the case was brought to a favourable conclusion, and at the present time (1844) I often meet him walking about the streets with an artificial limb. I have said nothing about a tedious exfoliation of bone which ensued, which, according to my own observation, is almost sure to follow an amputation performed under circumstances similar to Tanner's.

On examining the amputated limb, the femoral artery and vein in the popliteal space were found torn across.

AMPUTATION AT THE SHOULDER JOINT.

Charles Cook, aged 12, was admitted April 22nd, 1839, under the care of Mr. C. Fowler, with a severe comminuted compound fracture of the right fore-arm and arm, occasioned by the fall of a large quantity of earth on it.

Two hours after his admission, the patient having recovered in a measure, by the use of stimulants, from the immediate effect of the accident, Mr. Fowler proceeded to remove the limb at the shoulder joint, according to the plan recommended by the late Baron Dupuytren. The patient being seated on a low chair, and properly supported, a flap was raised from the anterior aspect, by pushing a narrow catlin through the mass of integument and muscle immediately below the acromion, the arm being held at right angles with the body; the superior flap was formed by cutting downwards. This was held back by an assistant, the arm being brought close to the side; the head of the humerus was quickly disentangled by dissecting down to the inside of the humerus; an assistant was then instructed to compress the artery in the flap with the finger and thumb, and the limb was separated from the body. A small quantity of blood was lost, and the operation was completed in less than a minute. The axillary and another large artery were tied, the boy became faint, and was put to bed; reaction ensued in an hour, and it became necessary to secure four small muscular arteries; the flaps were united by four sutures, and cold applied. Everything went on well; all the ligatures came away by May 14th, and on the 25th he was discharged.

ABSCESS OF THE TIBIA.—AMPUTATION.

Maria Arnott, aged 59, was admitted February 23rd, 1839, under the care of Mr. C. Fowler, for a disease of the left leg, of twenty years standing, which has been attended with a severe pain; during the last three

months she describes it as being intolerable. The integuments of the leg are much thickened, the walls of the tibia appear expanded, the superficial veins are gorged. She compares the pain to "a sharp instrument being sent up the marrow." She is desirous of having the limb removed immediately. In consultation, this request was at first refused, on the grounds that appearances did not justify the proceeding; however, she persisted in her request, and on February 29th Mr. Fowler proceeded to amputate the thigh by the circular operation; the femoral and several other arteries were secured.

In about two hours after the operation hæmorrhage came on, which obliged us to open the stump. The chief source of hæmorrhage was the artery of the medulla, which poured out a large quantity of blood; a strong solution of sulphate of zinc was applied, and after some time the bleeding ceased. All went on well, but the ligatures did not separate before the 3rd of April.

Examination of the limb, after the operation, discovered a thickening of the integuments. On sawing the tibia longitudinally, the cancellous structure was destroyed, and the lower portion filled with fetid pus, in my opinion fully justifying the operation which the patient prescribed, and so resolutely insisted on.

ANEURISM OF THE FEMORAL ARTERY—OPERATION.

William Spencer, aged 30, a tailor by trade, applied to Mr. C. Fowler, early in the month of July, 1839, on account of two tumours of an aneurismal character, one situated about six inches below Poupart's ligament, the other in the popliteal space of the left leg; the former being about the size of a duck's egg, the latter the size of a lemon.

He is of a spare habit, sallow, and unhealthy; has led a tolerably steady life, and has been in-kneed from his birth.

The history he is able to give of the disease is confused. He remembers first observing the swelling in the ham three years ago, but did not pay much attention to it, as he thought it was the result of deformity. His attention was first attracted to it on account of sharp pain in the leg. He has no idea when the tumour in the thigh made its first appearance, or which came first.

His appearance indicates disease of the chest. On several occasions he has spit up blood. The action of the heart can be heard all over the chest, and the impulse is very strong; the breathing hurried; the pulse at the wrist full and strong, always above 100.

In consultation it was determined not to tie the vessel at present; and his general aspect, and the great arterial excitement appearing to us to contraindicate any interference, he left the house.

August 31st. He was made an out patient under my care, and was seen by Mr. Fowler; the swelling in the ham had greatly increased, and had ceased to pulsate; the integuments covering it had a livid appearance; the swelling in the thigh had made no progress; the limb was painful and oedematous. In this state he was admitted into the hospital, a tourniquet being applied in the middle of the thigh, in order to arrest any bleeding that might occur. Pulse 120; unable to sleep for pain.

September 1st. His condition was fairly represented

to him by Mr. Fowler, and the operation of tying the external iliac artery proposed, which was consented to. He was bled and took a dose of castor oil.

September 2nd. The operation was performed by making an incision, extending from the superior spinous process of the ilium to within an inch of the abdominal ring, in a semilunar form. The artery was exposed with very little disturbance of the surrounding parts, and a ligature passed around it by the common aneurismal needle. The pulsation in the tumour immediately stopped when it was tightened; a small quantity of blood was lost, and the wound dressed by one suture, and plaster. He bore the operation with great fortitude. Warm dry flannel was applied to the limb. In the evening he complained of pain and numbness in the limb; pulse 120, temperature natural. He took a grain of morphia, in divided doses.

September 3rd. Slept some hours; tongue dry, complains of thirst; has passed no urine. I suspect none has been secreted.

September 4th. Had a good night; passed his urine freely; has occasional numbing pain in the limb. Pulse 116.

5th. Much the same.

September 6th. Another good night; complains of pricking pains in the foot; the limb is livid and its temperature low. A hot brick was applied, and nourishing diet and diffusible stimulus administered. It would be useless and unprofitable to note the daily progress of this case; it is sufficient to observe that gangrene of the limb ensued as high as the knee, that the tumour in the ham sloughed and discharged a fetid fluid, and he gradually got weaker and weaker, and died October 1st, no opportunity of amputating the limb being afforded, even had it been thought right to adopt such a measure.

POST-MORTEM EXAMINATION TWELVE HOURS AFTER DEATH.—Head not examined. The contents of the chest were more healthy than I expected; the right lung was adherent to the pleura, and exhibited marks of recent bronchitis; the heart was hypertrophied, especially the left ventricle. The femoral artery was traced on the left side; the ligature was placed on the external iliac artery, about an inch from the origin of the epigastric, and half an inch above Poupart's ligament; clots had formed above and below the ligature; the femoral aneurism was dissected out. At the termination of the sac there was a second artery running over the sac as large as the brachial, which was pervious; and, if a conjecture may be hazarded, I conceive it went to the popliteal tumour, which was destroyed by sloughing.

DISLOCATION OF THE FEMUR.

Ann Cox, aged 65, was admitted under the care of Mr. Agg, in the summer of 1833.

She was endeavouring to extricate a stick from beneath a large paving stone, which was standing against a wall; the stone fell, both legs being under it. She was unable to extricate herself till some people came to her assistance; she was carried to her cottage, and application for assistance was made at the hospital. When a pupil I went to see her. I found her left leg bent and turned inwards, the foot inverted, the trochanter projecting, and higher than it should be; the limb was nearly two inches shorter than the

opposite one. I ordered her to the hospital, and communicated my suspicions to Mr. C. Fowler, who happened to be in the building at the time, that I had seen a case of dislocation of the hip in a woman 65 years of age. The surgeons agreed that the case was one of dislocation of the head of the femur on the dorsum ilii, and about four hours after the accident they proceeded to reduce the luxation, the pulleys and other apparatus, recommended by Sir Astley Cooper, being used. Extension was kept up for nearly an hour before the bone went into its place, which happened while the limb was being rotated. Two grains of emetic tartar were given a few minutes before the reduction was accomplished, which produced its full effect.

COMPOUND FRACTURE OF THE TIBIA DURING PREGNANCY.

Ann Young, aged 36, a woman of good constitution and quiet temper, was admitted February 22, 1839, with a compound fracture of the right leg a little below its middle.

She is in the eighth month of pregnancy. The accident was occasioned by a sudden twist in getting out of bed. A surgeon was sent for, who found a wound in the leg, through which nearly an inch of the tibia protruded. The fracture was very oblique; the bone was reduced with little difficulty. A piece of lint and plaster were applied to the wound, and the limb was placed in splints in the fracture box. Spirit lotion was applied.

February 28th. The wound was dressed, suppuration had commenced, and there was a slight erysipelatous blush about the wound. The limb was dressed with simple dressing.

March 10th. The wound has firmly healed, and everything is going on well. I substituted two straight pieces of board for the common leg splints.

Five weeks from the receipt of the accident the bones had firmly united; on April 2nd, I delivered this woman of a fine healthy female child, and on the 14th, she left the house.

LITHOTOMY.

Thomas Trigg, aged 30, a labourer, of robust make, was admitted May 8th, 1832, under Mr. C. Fowler's care, with symptoms of stone in the bladder.

He has been subject to gravel since the age of seven years, for which he has been treated with benefit. He did not experience any painful or unpleasant symptoms till a year ago, when he suffered great pain in the loins, which was followed by a constant desire to void his urine, and other symptoms of stone. At the present time, his rest at night is much disturbed by the irritability of his bladder. He was sounded, and a stone felt. He is very anxious to have an operation performed for his relief. Some alterative medicines were prescribed, with a spare diet; by these means the irritability of the bladder was much lessened.

May 21. The rectum having been previously emptied, the operation was performed with the curved staff and cutting gorget; the first stroke of the knife divided a large transverse perineal artery, which required to be tied. Some difficulty was experienced in grasping the calculus with the straight forceps, as it lay behind the pubis. Assalini's curved ones were introduced, and a calculus of the mulberry kind extracted, weighing one

ounce. About sixteen ounces of blood were lost. The operation was rendered difficult by the great depth of the perineum. In about an hour after the operation, a great hæmorrhage occurred, which was only arrested by plugging the wound with a sponge, the patient's condition being very precarious; he vomited several times. The urine passed partly by the wound, and partly by the urethra, no doubt owing to the presence of the plug of sponge. This was removed on the third day after the operation, and the urine passed entirely by the wound till the 30th, when it passed by the natural passage. On the 13th of June he was discharged, cured.

ON MOVING MOLECULES IN THE INTERIOR OF CELLS.

LETTER FROM MR. ADDISON, OF MALVERN, TO DR. STREETEN.

MY DEAR SIR,

I address you personally on this occasion, to thank you for the care and attention with which you examined the moving molecules in the interior of the mucous cells in saliva, through my microscope, the other evening, at Mr. Peake's. Since then I have had an opportunity of showing them to the eminent professor of geology and mineralogy, Trinity College, Dublin, John Phillips, Esq., F.R.S.

In the first series of my "Experimental Researches" published in the eleventh volume of the Transactions of the Provincial Medical and Surgical Association, I concluded that *tubercles* and *hepatization of the lungs* consisted of matter accumulated by colourless blood-cells; and in the second series, just published in the twelfth volume of the Transactions, I have arrived at the still more general and important conclusion, that the colourless-blood-cell is the last or most highly organized form which living matter assumes in the circulating blood, and the essential or primary form of the living matter of the solid tissues, whatever may be the nature of the function of the tissue, healthy or diseased. Since the printing of the last of these researches, I have discovered, by employing a higher magnifying power, (from 700 to 1000 diameters linear,) an essential distinction between cells having moving molecules visible in their interior, and a disposition to discharge or liberate them; and those which have apparently passed through or have been arrested in the progress of what appears to me to be a vital and a normal change.* The accompanying paper contains the result of a more minute and critical examination of the objects circulating in the blood of the part, or discharged in the frequent and unimportant affections of the skin and mucous membranes, with especial reference to these active, moving, or living molecules, so numerous within the blood, the saliva, and the pus cells. The drawing I send is a correct and faithful representation of the appearances exhibited, or of the changes visible in the colourless blood and in the pus-cell a short time after these objects have been mingled with a drop of blood-warm water, as seen by a good, I may say, a first-rate microscope, amplifying 1000 diameters linear; and there can, I imagine, be no severer test of the qualities of an object glass, than the perfect definition of the

* Vide Provincial Medical Journal, March 9th.