

gut, possibly of no consequence, but perhaps liable to pressure if the colon became much distended. This decided me to open the large intestine. No elastic ligatures were used, as in Mr. Robson's case, as it was thought that a thorough sponge packing of the abdomen would prove effectual in keeping the peritoneum from being soiled, and also that the insertion of a Senn's plate directly the gut was incised would offer a firm point for sponge pressure whilst the gall-bladder was being prepared. This expectation was fully realised, and the ultimate result proved satisfactory to both patient and surgeon.<sup>7</sup> These biliary fistulae are rare; for, as a rule, after the operation of cholecystotomy, unconnected with malignant disease, the wound heals quickly and well provided that the common bile-duct is patent. For this reason I would impress upon you the desirability of counselling patients, when sufficient evidence has accumulated to make the diagnosis of retained gall-stones possible, to submit to the operation for their removal. For, as in other chronic diseases of the internal organs in which time, rest, and climate fail to relieve, surgery must be resorted to for palliation or cure. The irritation caused by the retention of one or more gall-stones may possibly be a factor inducing malignant disease of the liver, and a calculus firmly impacted in the common bile-duct, in its efforts to reach the duodenum, is a serious complication in cholecystotomy necessitating crushing, as advocated by Mr. Tait, or incision and suturing of the duct as successfully carried out by Mr. Knowsley Thornton, or a series of manipulations, such as boring or chipping off pieces of the stone to permit of its extraction, all of which may directly and indirectly result in a stenosed condition of the duct, and subsequently rendering such an operation as we have been considering imperative. To describe the method here carried out I have used the term "cholecystocolotomy" in preference to that of cholecystenterostomy, employed by other writers, as pointing out definitely that the fistula was established in connexion with the colon.

In conclusion I have to express to my house surgeon, Mr. James Lea, B.A., M.B. Cantab., the indebtedness of the patient and myself for the time, the skill, and unremitting attention he so willingly devoted to the case.

<sup>7</sup> The total loss of weight from May to the end of December was just under two stones.

ON AMPUTATION AT THE HIP-JOINT; WITH  
RECORD OF TEN CASES.  
By RICHARD DAVY, F.R.C.S. ENG., F.R.S.E.,  
SURGEON TO THE WESTMINSTER HOSPITAL.

FOR fifteen years I have been most interested clinically in cases of hip-joint disease that demand surgical severity. I trust that a summary of my experience may have a practical value, and may render somewhat less the anxiety and responsibility of surgeons undertaking this the gravest

amputation of all—viz., amputation at the hip-joint. The gravity of such procedure ought to forcibly impel surgeons to take measures to prevent its necessity. Early diagnosis of ilio-femoral disease, intelligent treatment, and perseverance with general and local measures should be written in bold type on the title-page of its history. Yet, in spite of warning, care, and weariness of well-doing, cases even-tuate whose only solution rests in ablation of the joint or of the limb. Traumatism plays an important initial part; insanitation and poverty supplement it; an amputation at the hip-joint amongst the well-to-do classes is almost unknown, bearing out the accepted dogma, that "circumstances alter cases." Let us take an instance where continued and exhaustive suppuration, hectic, hill and dale on the temperature chart, emaciation or commencing lardaceous disease of the viscera compel interference; then as a rule it is better to excise the joint in view of giving a patient the chance of improving, and as a preliminary step in any future operation. Yet personally I do not view excision of the hip-joint very favourably in any but young subjects; children up to and below ten do admirably after excision of the hip; over that age the dangers are greater, and the ultimate usefulness of the limb not so good.

The record of my own personal experience shows that I have operated on ten patients in fourteen years, all except one have been markedly inveterate cases of morbus coxae; four of them had suffered excision prior to amputation at the hip-joint, profuse suppuration and resultant enfeeblement have been the immediate conditions necessitating amputation; all these doubly operated upon patients have recovered, one good argument in favour of subdividing an amputation at the hip-joint into two stages, as advocated by Keetley; the mortality is 20 per cent; both were men, aged twenty-nine and forty-three respectively. Two of the patients have subsequently died, one eleven, the other eight years after operation. The first of these (Case 2 on the table) was supposed to have had lardaceous disease of his viscera, at any rate he had copious albuminuria and epithelial casts in his urine in 1878. In speaking of this boy in 1880 it was remarked: "This boy had lardaceous disease of his viscera, with distressing ascites. The rectal lever was used. It would have been impossible to compress his aorta or common iliac artery through the abdominal wall, by reason of the distension. This boy's recovery is pleasing, and the albumen in his urine is daily diminishing." On April 7th, 1890, he was readmitted into Westminster Hospital from Dr. Barnardo's Home, the subject of urgent and uncontrollable sickness, with a puffy and discharging right stump of thigh, and an oedematous foot (left). His urine was albuminous, alkaline; sp. gr. 1016. The patient passed about 11 oz. of urine in twenty-four hours, and there was persistent diarrhoea. On May 1st a piece of bone was removed from the stump and sinuses were laid open. He got weaker, duller, and more helpless, dying on May 23rd, 1890. Appended are Dr. Hebb's notes of the necropsy. "These I need not state fully, but will give an excerpt. The kidneys weighed 9½ oz. and 9¼ oz.

TEN CASES OF AMPUTATION AT THE HIP-JOINT.

| No. | Sex. | Age. | Date of admission. | Nature of disease.  | Operation.       | Departure.        | Result.                        | Blood lost. |
|-----|------|------|--------------------|---|------------------|-------------------|--------------------------------|-------------|
| 1   | Boy  | 9    | July 10th, 1876.   | Morbus coxae (right).   | Jan. 16th, 1877. | May 16th, 1877.   | Recovery.                      | 1½ oz.      |
| 2   | Boy  | 5    | Aug. 14th, 1878.   | Morbus coxae (right). Excision previously.                          | July 16th, 1879. | Oct. 21st, 1879.  | Recovery.*                     | 1 "         |
| 3   | Boy  | 3    | Nov. 28th, 1879.   | Caries. Left dislocation. Sequel of scarlet fever.                  | Jan. 20th, 1880. | June 24th, 1880.  | Recovery.                      | 5 "         |
| 4   | Man  | 29   | June 30th, 1880.   | Pelvic necrosis (left).   | Oct. 15th, 1880. | Oct. 15th, 1880.  | Death from shock in 5 hours.   | 4 "         |
| 5   | Boy  | 16   | April 18th, 1882.  | Excision, July 11th, 1882 (right).                                  | Nov. 21st, 1882. | Feb. 24th, 1883.  | Recovery.†                     | 1½ "        |
| 6   | Girl | 13   | Oct. 4th, 1885.    | Old dislocation at 2 years old (left morbus coxae).                 | Nov. 13th, 1885. | March 28th, 1884. | Recovery.                      | 2 "         |
| 7   | Girl | 23   | Jan. 16th, 1885.   | Excision of right hip-joint, Jan. 22nd, 1883. Flail limb.           | Jan. 27th, 1885. | May 1st, 1885.    | Recovery.                      | 3 "         |
| 8   | Man  | 43   | May 4th, 1886.     | Necrosis of left head, neck, and shaft of femur.                    | June 8th, 1886.  | June 9th, 1886.   | Death from syncope (18 hours). | 2 "         |
| 9   | Boy  | 10   | Oct. 21st, 1886.   | Morbus coxae (left).  | Oct. 29th, 1886. | Jan. 25th, 1887.  | Recovery.                      | 2 "         |
| 10  | Boy  | 14   | Oct. 20th, 1890.   | Morbus coxae (left). Excision, Nov. 9th, 1890 (elastic tourniquet.) | Jan. 20th, 1891. | April 21st, 1891. | Recovery.                      | 2½ "        |

\* Boy died May 23rd, 1890.

† Ambulanced to Harlington. Death in the Royal Free Hospital from pelvic necrosis on Feb 6th, 1890

right and left respectively. They are typical examples of large white kidney. None of the viscera present any of the characteristics of lardaceous disease, nor do they give any amyloid reaction with iodine." We see therefore how difficult it is to diagnose lardaceous disease in these exhausted surgical cases. Case 5 died on Feb. 6th, 1890, eight years after operation, in the Royal Free Hospital, of pelvic necrosis. I positively declined to see the complete post-mortem examination on this boy's body because the post-mortem room was filled with women. In my opinion women are quite out of place in the deadhouse of any general hospital. So, as they would not leave, I did.

*Method of operating.*—In 1880 (Surgical Lectures) I stated: "With reference to the method of operating I shall only advise you to exercise common sense, and apply it to each individual case; keeping the skin intact where the scrotum rubs the thigh, saving as much soft tissue as you possibly can, and having your front flap covering the wound epaulette fashion, for the production of a dependent drainage, and the utmost simplicity of future dressing." Furneaux Jordan, in recapitulating the essentials of his operation, says, "I conclude by again repeating the principle of the operation—enucleate the bone where it is most thinly covered; cut across the soft parts where they are smallest; do not touch the bulky soft parts at the inner and upper parts of the thigh."

Professor Ollier of Lyons did this operation in 1859, but the credit of bringing the method prominently before surgeons is, in my opinion, greatly due to Furneaux Jordan. The lever or elastic tourniquet having been applied, a circular incision is made at about the upper third of the thigh, through all the soft structures down to the femur; the lower section is drawn down forcibly towards the knee, to give space for the ligation or torsion of vessels. The bone is not divided, but kept intact for future leverage in disarticulating at the hip-joint (a most valuable act of conservatism). After all vessels are carefully secured an external wound is made right down to the shaft of the femur; the muscles around the trochanter major and the shaft of the bone are freed from their attachments; utilising the under surface of the rectus femoris as a guide, divide the psoas and iliacus on the capsule of the joint, as well as the capsule itself, by a long anterior slit and two short crucial nicks. The assistant then rotates the limb outwards, and forcibly adducts the knee towards the opposite armpit to dislocate the femur from the pelvis. By the yet further availableness of the limb and femur as a lever the member is removed by a few well-directed touches of the knife, any vessels which may have been injured are promptly secured, the acetabulum is scraped, if necessary, the wound is thoroughly syringed with hot water and corrosive sublimate solution, stitches are put in, and the patient is at once conveyed to a warm bed. Use all proper speed in operating short of hurry. "*Festina lentè*" is a good motto for convenient haste. Only one word about the lever. Nine out of these ten cases have submitted to its employment. The elastic bandage in the hands of a competent assistant is quite sufficient to control any hæmorrhage, and especially so in those cases where excision of the joint has preceded amputation. The elastic cord must be applied obliquely, spica fashion, and be manipulated so as not to interfere with abdominal respiration. The use of the elastic cord is absolutely free from danger; that of the lever is not.

Let me correct an error that has frequently been expressed, that an amputation at the hip-joint involves a loss of nearly one-fourth of the human frame. I have already contradicted this, and can adduce chapter and verse on this point. On Jan. 20th, 1891, I amputated at the hip-joint of a boy aged fourteen. The weight of the parts removed was 4 lb. On Feb. 19th, 1891, I weighed the boy—as soon as I felt it safe—and his body weighed 50 lb. Admitting that he might have gained 2 lb. in weight since the operation, we have the proportion of tissue removed to tissue saved as 4 to 48. This reduces the mutilation to one-thirteenth of the boy's body—a great difference from one-fourth. The point of selection (upper third of thigh) as now practised necessarily makes the comparison favourable; for in olden days the catlin entered at the anterior superior spine of the ilium, and emerged near the tuber ischii, slap-dashing off the limb by two flaps.

On Oct. 17th, 1881, the late Mr. Shuter amputated a boy's left thigh at the hip-joint<sup>1</sup> by a subperiosteal

method. In 1882 the boy had a strong movable stump, and it had the appearance of an amputation in the middle third of the thigh. An artificial limb was made for the boy by Mr. Gray. This was worn for five months, and it had to be discontinued by reason of a painful sinus, which opened opposite the acetabulum. The case was exhibited on Feb. 9th, 1883. The committee appointed to report on the condition of the boy's stump state that by "the preservation of the muscles of such a length, and with their attachments becoming so firmly united around a strong central cord, the result obtained approaches that of an ordinary amputation at the upper third of the thigh, in respect both to the facility of adapting an artificial limb and the power with which the patient can move this appliance when walking."

My patients are all walking with the aid of crutches, except one, who has an artificial limb. For working folk crutches are such a support, such a warning to outsiders, so easily discarded or resumed, and so comparatively cheap, that practically they are preferred in cases of this nature.

The explanation of the reduced mortality from 60 to 20 per cent. appears to be a general one.

1. The use of anæsthetics. We are too apt to forget the benefits handed down to us by previous workers better than ourselves, and to pocket their results as if they were our own. The patient being free from pain, permits a more careful and studious dexterity on the part of the surgeon, and lessens the shock on the part of himself. 2. The more rigorous application of measures calculated to prevent the loss of blood; such as the lever, elastic bandage, torsion, and the composed conduct of dressers. 3. The diminished shock, by adopting the method of operating at the juncture of the upper and middle third of the thigh instead of the old high transfexion plan; the less risk of hæmorrhage (primary and secondary); and the uninjured condition of parts at the inner side of the thigh, situated in the confines of Scarpa's triangle. 4. Improved sanitation, nursing, and hygienic surroundings; more skilful dressings; marked cleanliness and the use of the syringe. 5. The greater quiet of isolation, the careful selection of cases for operation, and the better sustained discipline preparatory to and after the operation.

Let me again advocate every possible trial on the part of the surgeon to prevent the necessity of recourse to amputation at the hip-joint. Should such necessity occur as a last resource for saving life, let the operation be done on somewhat similar lines to what has been narrated in this paper; let it be completed with resolution and composure. Then, after the daily and nightly care of surgeon and nurse, for may be weeks or months, the patient will be able to walk on crutches or with the aid of an artificial limb, and enjoy a further lease of life.

Welbeck-street, W.

## IODODERMA, OR DERMATITIS TUBEROSA, DUE TO THE INGESTION OF IODIDE OF POTASSIUM.

BY NORMAN WALKER, M.D., M.R.C.P. EDIN.

THE following case, which occurred in Dr. Unna's clinic last summer, and which Dr. Unna kindly handed over to me for investigation, is one of considerable interest, for although several cases have been clinically described, the pathological histology of the new growth has, with a very few exceptions, remained uninvestigated.

J. E—, male, aged forty-one, married, was admitted on July 21st on account of a rapidly growing tumour situated on the lower part of the nose. He has always enjoyed good health. He has had gonorrhœa at least twice, and seven months ago he acquired a sore on the penis, which, he says, healed up under the application of cupric sulphate, and gave him no more trouble. His glands are everywhere hard, but not much enlarged. He never had any cutaneous eruption or loss of hair. His urine contained no albumen. The history of the present affection is as follows:—On July 8th, on account of a feeling of dryness and discomfort in his throat, he consulted a laryngologist, who prescribed for him a mixture containing iodide of potassium, of which he was to take doses amounting altogether to seventy-five grains a day. The throat affection improved, but on July 13th a small nodule appeared on the bridge of the

<sup>1</sup> Vide Clin. Soc. Trans., vol. xvi., p. 86.