LONDON HOSPITAL.

CASE OF AMPUTATION AT THE HIP-JOINT.

(Under the care of Mr. JONATHAN HUTCHINSON.)

IN connexion with this case, it will be interesting to note that three successive cases of amputation at the hip-joint for disease, at this hospital, have been followed by recovery. In 1866 Mr. Curling operated on a girl ten years of age, for disease of the hip-joint with cario-necrosis of the acetabulum, who was in a state of great exhaustion. In 1867 there occurred two cases; both were operated on by Mr. Couper, and in both the cause was malignant disease of the femur. One patient was a man twenty-two years of age, and the other a middle-aged woman. During 1868 and 1869 the operation was not performed.

The patient in the present case was a girl about nine years of age, very much emaciated and of exsanguine appearance. She had been admitted seven months previously with disease of the trochanter and knee-joint; and Mr. Hutchinson had endeavoured to arrest the former by removing with the gouge the carious portion of the bone. Shortly after admission, an acute relapse of the disease had occurred in the knee, and had ended in complete disorganisation, and Mr. Hutchinson was only withheld from removing the limb by the parents refusing to sanction the operation; but as it had become evident that, unless relief were afforded, death would shortly ensue, they had at length given their consent. On introducing the finger into the sinus of an old abscess round the upper part of the femur, there was found in the trochanter a hole large enough to receive the finger, and around it there still remained a large suppurating cavity, which had extended so far behind the trochanter that Mr. Hutchinson decided on removing the whole of the femur. The abdominal aorta was secured with a tourniquet, and flaps were taken from the anterior and posterior aspects of the limb, according to Liston's method, while Mr. Couper strictly carried out the carbolic antiseptic system, which he has for some time past practised with very favourable results. A spray of carbolic lotion, of the strength of 1 in 20 parts, was played upon the exposed surfaces in the course of the first part of the operation, and then from time to time more was syringed in between the flaps until they were finally secured. The vessels were tied with carbolated gut ligatures. The flaps were united by two deep sutures of the same preparation, inserted about an inch and a half from their cut edges, and by one or two others more superficially situated. The edges of the skin were brought into accurate adjustment by means of iron sutures. On the removal of the tourniquet an enema of brandy-and-water was administered. The stump was covered with bands of carbolated lac plaster about a foot in width, which were carried upwards to the waist. These were covered with a thick layer of cotton wool, and then secured with a flannel roller, which was first wound round the waist and hips, and then applied over the stump in the usual manner. On examining the amputated limb, Mr. Hutchinson found that the walls of the cavity in the trochanter consisted of bone softened by the extension of the carious process. There was but little disease of the shaft, but a large abscess extended along the whole of its anterior aspect; the head of the bone was healthy. The knee-joint was found to be completely destroyed.

In deciding on the operation to be adopted in this case, Mr. Hutchinson said that he had been guided by an estimation of the comparative danger of amputation at the hip-joint and at the upper third of the thigh. The former was liable to produce a greater shock to the nervous system, though the difference in that respect did not, in his opinion, amount to much. The latter operation involved a greater risk of pyæmia; it would have left behind a large suppurating surface, and exposed the patient to the chance of an extension of the scrofulous disease of the bone; and considering her precarious condition, and the urgent necessity for avoiding any further suppuration, he had concluded that the greater operation would offer the better chance of a successful result.

The statistics of hip-joint amputation had, Mr. Hutchinson added, been roughly heaped together without reference to the cause of the injury and the state of the patient's health. The majority of recorded cases were primary and secondary

amputations after gunshot wounds, which nearly always terminated fatally; and thrown in with them was a comparatively small number of operations for chronic disease, a good proportion of which had been followed by recovery.

On the day following the operation the patient was comfortable, and was taking food well.

Provincial Hospital Reports.

LEEDS GENERAL INFIRMARY.

A CASE OF POISONING BY COAL-GAS.

(Under the care of Mr. JESSOP.)

THE following case, forwarded to us by Mr. McGill, the resident medical officer, is a detailed account of effects which followed the inhalation of common coal-gas. We are not aware of any similar case having been placed on record.

At 7 A.M., on Aug. 26th, Daniel L—, aged twenty-four, went into a large gas-pipe, four feet in diameter, to look after a leak. He thought that all the gas had been let off. On entering the pipe he perceived a strong smell of gas, but after that remembered nothing more till he found himself in the infirmary. It had been ascertained, however, that at the end of twenty minutes he was discovered senseless in the pipe, and that a rope was passed round his legs, by which he was drawn into the open air. For half an hour he did not move, and remained to all appearance dead; he then gradually revived, and soon afterwards became so violent that he was brought to the infirmary, where he arrived at 8.45.

On admission, he was found to be a strong muscular man, struggling so violently that it took three or four men to hold him. He was quite unconscious of anything that took place, and did not know any of his friends. His struggling was altogether involuntary, and consisted in convulsive attacks, which followed one another so quickly as to be almost continuous. These attacks were of different degrees of severity. A severe one consisted of the following stages:—1st. A loud cry. 2nd. Contraction of the muscles opening the jaws, so that the mouth was opened and the corners drawn down. 3rd. Contraction of the sterno-mastoids and muscle at the anterior part of the neck, bending the head forwards. 4th. Contraction of the muscles at the anterior part of the body, raising him in bed into a sitting posture. 5th. The spasm raised him on to his feet, making him stand straight up in the middle of the bed, rolling slightly from side to side, and throwing his arms about. 6th. He fell from this position in a heap on to the bed. This sequence occurred more than once, and would no doubt have happened oftener had he not been held down. His pulse was small and almost imperceptible—116; the temperature 99°. His skin was bathed with perspiration; the pupils were normal. There was no foaming at the mouth, vomiting, or stertorous breathing.—9.45 A.M.: Has been quieter for the last three quarters of an hour, being apparently relieved by a large mustard poultice which had been applied all over his chest.—10.15 A.M.: Has been more violent than ever since 10 o'clock. To have chloroform inhalation.—11.15 A.M.: After the chloroform, of which he required a very small quantity, he was quite quiet for half an hour; since which time he has been rather restless, and is now getting violent. To have the chloroform repeated.—2 P.M.: The chloroform acted as before, sending him to sleep for half an hour; he then became restless for about ten minutes, and dropped off to sleep again, and has slept till the present time. Is just awake, knows his friends, and can answer questions in a doubtful, hesitating manner.—4 P.M.: Is sitting up in bed, taking his tea with good appetite.

Aug. 28th.—Left the infirmary in his usual state of health.

BRADFORD INFIRMARY.

A CASE OF ARTERITIS.

(Under the care of Mr. H. MEADE.)

THE following appears to be an instance of very extensive arteritis. All the arteries which were examined bore traces of inflammation; and, from the feeble character of the

pulsation in others, it seems probable that, had a complete examination been permitted, the inflammatory action would have been found to be still more widely diffused than was proved by actual inspection. Dr. Rabagliati, to whom we are indebted for this report, remarks that the microscopic examination of affected arteries bears out Rokitansky's statement that arteritis produces results quite distinct from atheroma—a distinction which is not mentioned in some textbooks of high standing.

Jane P—, aged eighteen, a servant, was admitted on the 5th of August, suffering from gangrene of the toes of the left foot. She complained of great pain in the whole of the left leg, more especially in the affected part. The pain was of a shooting character, and came on in paroxysms which lasted several hours. No pulsation could be detected, on the most careful examination, in the femoral or any of the arteries of the left lower limb. With great care, thin, thready pulsation could be made out in the right femoral. The skin over the left patella was dark. There was no pulsation in the right brachial or any of the arteries of the right upper limb; while in the left the pulsation could be traced, though it was less distinct than natural. No pulsation could be made out in either carotid. The patient was much emaciated, though there was not much wasting of any one limb as compared with the corresponding one of the opposite side. The heart's action was accelerated, but there was no murmur. The tongue was remarkably clean and moist, though the state of the bowels alternated between constipation and diarrhoea. In the further progress of the case, the gangrene of the toes, which was of a dry character, and accompanied by dark-red discoloration, continued to spread. The colour then darkened into purple, and the toes shrivelled and dried up; the skin over the patella also became darker, and sloughed, exposing the bare bone, and by a similar process the tibia was laid bare in its whole course. The pulsation never returned in any of the pulseless arteries, and the patient sank exhausted on the 21st of October, the most prominent symptom before death being bilious vomiting.

When she was first seen by Mr. Meade in the beginning of July, the patient complained of dull, aching pains in the legs and thighs, which she thought were rheumatic, and attributed to having had to scrub and kneel on wet floors. At that time she had constant sickness. The pain in the limbs was paroxysmal, more severe in the left than right leg. There was slight discoloration of the skin over the left toes, and no pulsation was observable in any of the arteries above enumerated. As regards treatment, the patient was ordered to have the limbs wrapped in cotton wool, and to take stimulants, a nourishing diet, and opiates according to circumstances.

Permission could be obtained to make only a limited post-mortem examination. The heart, and the aorta as far as the left femoral artery in Hunter's canal, were examined, with the corresponding veins, as were also the right brachial artery and vein. The heart was small, but normal; all the valves competent. There was no trace of inflammation externally, but the serous membrane lining the left ventricle was slightly injected, and the ventricle was filled with a firm fibrinous clot, presenting points reddened apparently by vascularity; under the microscope sections of bloodvessels were found in them. The clot consisted mainly of fibrous tissue with numerous nuclei. The inner coat of the aorta was injected throughout, and at frequent intervals showed patches of a deeper red. These last seemed to penetrate in one or two places almost the whole thickness of the vessel, so as nearly to cause perforation. A layer of fibrin was deposited like an inner lining membrane along the whole surface of the vessel, and could be peeled off in a continuous layer. On doing so, the vessel could be felt rough at the points where the injection was most marked. The deposit was not in such quantity as seriously to diminish the calibre of the artery. The injected appearance could be followed up into the serous lining of the left ventricle, where, however, it became much fainter in colour. At its bifurcation the aorta was filled with a light-yellow lymphous deposit, which seemed to be breaking down. The clot extended into the common iliac, and reduced it so that at the bifurcation of the aorta it was not larger than a goosequill. The whole aorta was much

puckered internally. The left external iliac felt like a cord about the size of a goosequill, and was quite filled with a red, firm, organised clot, which seemed quite to occlude the vessel. On separating the clot, the inner coat was seen much injected, of a crimson colour, and with well-marked transverse striæ along its course. These, under the microscope, were seen to consist of white and yellow elastic tissue (both quite characteristic), with plain muscular fibres and numerous nuclei. There was no atheromatous deposit. The femoral artery was about the size of a crowquill, more pervious than the external iliac, and contained a clot of a light-yellow colour and friable—more like that discovered at the bifurcation of the aorta. The inner coat was also much injected, and the transverse striation well marked. The clot here was, in appearance, not unlike an earthworm, from bearing the impression in reverse of the transverse striation of the inner coat. In Hunter's canal the vessel increased in calibre; in this situation also the vein was shrunk and injected, but higher up it presented a more healthy appearance. The right brachial artery was like a cord, quite shrunk, barely pervious. The vein was normal. In the bronchial glands there was a calcareous deposit of the size of a walnut.

Medical Societies.

MEDICAL SOCIETY OF LONDON.

MONDAY, NOV. 14TH, 1870.

MR. GAY, PRESIDENT, IN THE CHAIR.

THE PRESIDENT showed specimens of Elastic Tissue, Oil-Silk, and Gutta-percha prepared by a patent process, so as to be unaffected by heat or moisture; hence they could be cleansed, and used more than once for dressings.

Dr. ALTHAUS showed a patient of about ten years of age, who had lost sensation and power of motion in the right arm, without atrophy, probably from rheumatic inflammation of the brachial plexus. The ordinary treatments for rheumatism failed. The continuous current rapidly cured the case. Dr. Althaus, in a very lucid manner, discussed the question of pathology, and then explained a very convenient form of apparatus for applying the continuous current, made by Weiss, and consisting of a platinum-zinc battery of fifty cells, in a box. When closed, the cells containing the acid sank below the plates; when the box was widely opened, the vulcanite cells of acid were raised and brought into contact with the plates, and thus the battery was set to work.

Mr. TEEVAN showed a Calculus, removed by incision from the ischio-rectal fossa of a man aged forty, who had been cut for stone when five years old. Recently the urine had escaped from the old cicatrix, and a hard body was felt, which turned out to be the stone in question. It had facets, and had probably been in contact with other calculi in the bladder.

The PRESIDENT exhibited a stone weighing two ounces and a quarter, which he had removed from a feeble rickety boy. The contracted state of the pelvis made the operation difficult. The boy sank a few days after the operation.

Mr. J. D. HILL then read the paper of the evening, entitled "An Analysis of 140 cases of Organic Urethral Stricture." Of that number he had submitted 120 patients to Holt's operation, and 20 to perineal section, or Syme's operation, and he now compared the results, and pointed out what were suitable cases for the respective operations. In the 120 cases in which Holt's operation had been performed there were 2 deaths, and 118 recoveries. The two patients who died were the subjects of organic disease. No death had followed Syme's operation in the 20 cases. Mr. Hill arranged his cases under the four heads of simple, multiple, complicated, and cartilaginous undilatable stricture. In the three former, Holt's operation, and in the latter, Syme's operation was performed. The following were the conclusions given in reference to the former procedure: that the operation is the most satisfactory method of treating any form of organic urethral stricture which is amenable to dilatation, and with careful attention to preliminaries there is no more risk in its employment than in ordinary catheterism; that where the latter is followed by bad