CASE II.—In February 1868, I saw a stout middle-aged man in consultation with Mr. McLachlan, of Shelf, near Halifax, who had complete mortification of one leg as high as the knee. He had a rather feeble heart, but there were no signs of valvular disease; and he had appeared in good health up to the time of the present attack, which began suddenly, a week before the date of my visit, while he was walking home one evening a short distance, after attending a lecture. It commenced, as in the former case, by severe pain in the calf of the leg, which was succeeded by coldness and rapid death of the limb. When I saw the case, the mortification was apparently extending; so there was nothing to do but to wait, and endeavour to keep up the strength. I said, should the gangrene stop, and the dead parts separate from the healthy structures, it would become a question whether amputation should be performed.

I did not see this patient again, but heard, some weeks afterwards, that the limb had been removed, and that the man had died.

CASE III.—In January 1869, I saw (with Mr. Terry, of Bradford), a delicate lady, about 30 years of age, who was of a very feeble constitution, but had never suffered from any symptoms of heart-disease. This patient had been confined nine weeks before I was called in, and complained, at the time of my visit, of a painful swelling in the right iliac region, which appeared to be owing either to the commencement of a pelvic abscess, or to inflammation of the tissues round the ovary. It was very tender on pressure, both externally and also at the roof of the vagina. She laboured as well under diarrhoea and general debility. By the application of a few leeches, followed by iodine and soothing applications, the tumour became smaller and less tender, and she improved sufficiently in health to be able to travel to the sea-side. While there, she was one day seized with violent pain in the leg, which was rapidly followed by mortification of the limb, under which she quickly sank.

CASE IV.—An old lady, aged 74, whose health was breaking up from old-standing heart-disease, accompanied by anasarca; and who suffered very much at times from congestion of the lungs, with dyspnoea; was seized one morning in May 1869, with excruciating pain in her right shoulder, causing her to scream out loudly. I found her, shortly after the commencement of the attack, with the whole arm wrapped up in hot flannels, and still complaining of severe pain, extending from the shoulder to the fingers. Upon examination, I ascertained that there was complete absence of pulsation in the radial and ulnar arteries, as well as in the brachial; I also found that the right hand and arm were colder than the left, though they had been wrapped up and fomented to relieve the pain. I directed the limb to be covered with cotton-wool, and to be kept warm. By these means, the temperature was preserved, the pain gradually subsided; and I had the satisfaction to feel a slight return of pulsation in the arteries after about two days, which, in the course of a week, regained the same strength as in the opposite limb.

Out of these four cases of embolism, in three mortification occurred, and they were fatal; but one recovered; and I find a somewhat similar case of recovery, after the plugging of the main artery of a limb by an embolus, recorded in the *BRITISH MEDICAL JOURNAL* for the 5th of February last. It occurred at the Salop Infirmary, into which a man, aged 31, was admitted, who had been seized while walking with pain in the calf of the leg, which was followed by coldness of the leg and foot. There was no pulsation to be felt in either tibial or popliteal arteries; it was lost in the femoral about an inch below Poupart's ligament, at which spot there was pain and swelling. The man had had rheumatic carditis. The leg was wrapped up in cotton-wool, tonics and stimulants were administered, and the patient recovered without the occurrence of mortification; though, at the date of the report, there was no pulsation in the tibial arteries, and the leg was colder than the other.

REMARKS.—1. The sudden obstruction of the main artery of a limb by an embolus, is generally followed by severe pain, which may be referred to a part removed from the seat of obstruction—as the calf of the leg. 2. Mortification does not necessarily follow; but when the death of a limb is caused in this way, there is not much hope of saving life, as the accident mostly occurs in diseased subjects, in whom the heart and arteries are affected, and the constitution enfeebled. 3. What is the nature of the plug or embolus? I believe that in some cases, as in the first which I have related, the blood becomes partially coagulated, and fibrinous deposits take place in the heart itself, during an attack of syncope, or, rather, asphyxia; and portions of the coagulum are then carried, on the revival of the circulation, through the aorta into the vessels of the limbs. In others, and perhaps in most cases, fibrinous vegetations are detached from the valves on the left side of the heart, which had been deposited there at some former period, during an attack of endocarditis. I believe that most cases of senile gangrene are caused in this way; the emboli being small, however, and plugging one of the

lesser arteries of the limb. An old gentleman complained to me, about two years ago, of a pain which he felt in the calf of one leg, particularly in walking. On examination, I could find nothing wrong about the seat of pain; but the inner side of the foot and the great toe were mottled with red patches, and colder than the other foot. I advised him to lay himself up, and keep the foot warmly wrapped in wool. After the lapse of some weeks, superficial gangrene of the skin of the toe took place, which, however, slowly separated; the part healed, and the patient recovered, after a confinement to the house of about six months. 4. In cases that recover after embolism, without gangrene taking place, how is the circulation restored? In the case that occurred in the Salop Infirmary, the life of the limb seemed to have been preserved by means of enlargement of the collateral circulation, in the same way as it is after the ligation of the main vessel of a limb for the cure of aneurism; but, in the case which I met with of plugging of the axillary artery, the circulation in the arteries of the arm was restored so quickly, that I think the embolus must have consisted of a soft clot, which disintegrated so as to allow the vessel to regain its permeability.

A SWELLING SIMULATING AXILLARY ANEURISM.

By C. S. JEAFFRESON, ESQ., Newcastle-upon-Tyne.

A GENTLEMAN came to consult me two months ago. He was a tall muscular man, with a muddy complexion and an anxious expression of countenance. He complained of pains in the shoulders and arms, and occasionally in the integuments of the back of the head and scalp; the pains were not always present during the day, but during the night they became very acute and disturbed his rest materially. I requested him to strip, that I might examine his joints and skin, when immediately below the left clavicle was observed a swelling: this swelling was diffused; the skin over it was of normal colour. It was without fluctuation, but distinctly pulsating; the pulsation, as far as the position and depth of the tumour would allow one to judge, being of that expansile character pathognomonic of aneurism. With the stethoscope, a loud murmur was heard over the swelling; this ceased, together with pulsation, when pressure was made upon the subclavian artery. There was no oedema nor numbness of the arm, though the radial pulse was decidedly weaker on the left side than on the right. The pupil of the left eye was markedly more contracted than that of the right. The patient could move his arm freely, and had no pain at the seat of swelling; nor was there tenderness except upon considerable pressure. The lungs and heart, on percussion and auscultation, revealed no morbid sounds; the latter organ was rather rapid in its action, or what is generally called nervous.

The question to be decided was the character of the tumour. Anyone reading the symptoms detailed above would almost certainly come to the conclusion that it was an aneurism of the first part of the axillary artery; and, in point of fact, several medical men had come to that conclusion; but there were some points in the case which tended to throw doubts upon this decision, and to lead one to form a more careful analysis of its history and facts. It was evident that it must be one of three things; either (1) an aneurism; or (2) a pulsating tumour; or (3) a swelling of some kind pressing forward the axillary artery. If it were an aneurism, doubtless we should have had all the symptoms above detailed; but then they would all have been more marked. There would have been pain at the seat of swelling, and almost certainly some numbness in the course of the large nerves, together with more or less oedema, from obstructed circulation, on the affected side. The outline, too, of the swelling was scarcely sufficiently defined; and at its lower and inner portion the pulsation was much less distinct, and the *bruit* much less audible than in other portions of its surface. If it had been a pulsating tumour connected with the ribs, pressure upon the subclavian in the third portion of its course could scarcely have checked its pulsations; and if it sprang from the lung, we could scarcely have failed to get some auscultatory evidence of the fact. These two possible views being thus disposed of, there remained still the question of its being a swelling of some kind projecting the artery before it. What could a swelling be in such a position? Here, again, we must go through a process of negative analysis. It could not be an enlarged gland, for there are none in this situation. Abscess, too, was out of the question; for there was no pain, no rigors, no fluctuation, and any tumour connected with the nerves would certainly have given rise to decided symptoms. But one thing remained which it might probably be, and that was periostitis of the ribs and cartilages. This conclusion was strengthened by a previous history of syphilis; and the pains of which he complained were distinctly referable to that disease.

I believe it to have been utterly impossible for anyone at this period to make a positive and definite diagnosis; but it was clear that a short period of time must elucidate the difficulties of the case, for, if the pains were due to syphilis and the swelling were periostitis from the same cause, all the symptoms would show a decided and rapid amelioration under the influence of iodide of potassium. Therefore, with these assurances I comforted my patient, who, in his own mind, had a rooted conviction that he was suffering from aneurism.

I placed his arm in a sling, and covered the swelling with the ammoniacum and mercury plaster; ordered him, internally, fifteen-grain doses of the iodide of potassium in decoction of bark three times a day; and arranged for him to return in a week's time. When next I saw him, he informed me that the pains left him immediately on taking the medicine, and had never recurred since; but, on examining the swelling, there was a decided increase in size, the pulsation was more forcible, and the *bruit* louder. My patient was in great anxiety; but I persuaded him to continue his treatment for another week. At the end of this period, there were marked signs of improvement, which have continued up to the present time, when I think I may fairly say there is very little, if any, trace of his original disease.

This case was certainly one of unusual interest, and for many reasons worthy of record. The usual text-books on surgery make no mention of cases of this kind, and treat of the diagnosis of axillary aneurism as being a matter of great facility. Thus Erichsen says: "The diagnosis of axillary aneurism is generally readily made, there being but two diseases with which it can well be confounded—viz., chronic enlargement and suppuration of the glands of the axilla, and pulsating tumours of the bones in this region." These remarks are doubtless true as far as the more distal parts of the axillary artery are concerned; but, in point of fact, any tumour or swelling thus connected with the bone or other tissues, is liable to be mistaken for an aneurism, when developing below the axillary artery, immediately beneath the clavicle, as in the case I have above described. The depth of the parts and the thick covering of the pectoral muscle so obscure the contour of the tumour and the character of the pulsation, as to materially increase the difficulties of diagnosis; and this is aided by the facility with which the slightest pressure on the artery produces a *bruit* in this situation. Most of the symptoms which are detailed as those of aneurism are merely referable to the secondary effects of pressure on veins and nerves, and may be produced as well by any other growth as by an aneurism. In this case there was myosis of the left pupil, which, I think, could scarcely be attributed to the pressure of any portion of the swelling which was observable; but doubtless the periostitis extended beyond that, and pressed upon some of the spino-sympathetic nerves at the root of the neck.

I think we learn from the above history how cautious we should be in believing in cases of spontaneous cure of aneurism. Doubtless, if this case had been left to itself, in course of time it would have got well, and might, but for fortuitous circumstances, have been recorded as a case of spontaneously cured aneurism. It shows, too, how the history of a patient's antecedent maladies can throw light upon present disease, and clear up difficulties which at first sight seem insuperable; for in this case, had there not been a clear history of syphilis, diagnosis would have been much more uncertain, and the treatment, which was so successful, would never have been indicated.

SUDDEN AND FATAL ILLNESS WITH ALBUMINURIA.

By JOHN RUSSELL, M.D., Neath.

A. B., aged 29, who one Sunday evening was apparently in unusually good health and spirits, was seized at about three o'clock on the following morning with violent headache and vomiting, attended by relaxation of the bowels. I visited him shortly before eight, when he was much as described above, with a hot burning skin, and his pulse from 140 to 150. Viewing the case as a violent bilious attack, which in some measure had relieved itself, I prescribed accordingly. At 11 A.M., he was thought to be something easier. At 1.30 P.M., he was seized with violent convulsions. I arrived at the house at about 8.30 P.M., when I was told that the patient had had one or more additional convulsions, and had just died. The trunk and extremities were dotted all over with spots of ecchymosis. I am not aware that the patient was supposed to have been labouring under any organic disease. The character of the illness led to the idea of blood-poisoning; and as convulsions and vomiting are acknowledged symptoms of uræmic poisoning, it was thought that the urine might throw some light upon the disease. Anything in the shape of a *post mortem* examination of the body was

positively objected to; but I succeeded in obtaining about three drachms of urine by the catheter. This, upon being boiled, became almost one gelatinous mass, and was unaffected by nitric acid. This appeared to myself satisfactory evidence as to the cause of death: but a medical friend demurred to my conclusion, inasmuch as he thought that, upon the cessation of vital action, endosmosis and exosmosis might become more active, and the urine thereby become albuminous. With the view of clearing up this point, I have since examined upwards of twenty specimens of *post mortem* urine, and in no instance in which it had been ascertained to be non-albuminous recently before death had it become so afterwards; thus proving that urine will not become albuminous as a consequence of death. I beg now to propound the question, "How far might such a condition of *post mortem* urine (as was discovered), coupled with such a train of symptoms, be considered conclusive as to the cause of death?"

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

ST. BARTHOLOMEW'S HOSPITAL.

CASES OF HERNIA.

(Under the care of Mr. SAVORY.)

Strangulated Femoral Hernia in a Woman of 70, complicated with Hypertrophy of Glands concealing the Sac: Operation: Dysenteric Diarrhoea: Recovery.—On Tuesday, the 12th of April, Mr. Savory operated on two very remarkable cases of hernia in St. Bartholomew's Hospital. In the morning, a spare old woman, above 70 years of age, was admitted with a tumour, of the size of an orange, over the right femoral ring, into which it could be traced by a distinct pedicle. The tumour moved freely under the skin, which was loose and natural over it. It was not at all tender, and was resonant on percussion; and immediately below it were two enlarged, but not much hardened, glands, about the size of filberts, close together. No action of the bowels had occurred for a week; for six days she had been very sick, and what she had vomited during the last two days, she said, smelt very badly. Since she had been in the Hospital she had retched repeatedly, but had brought up nothing. Her countenance was natural, the pulse about 90, the abdomen tolerant of pressure. She was rather dull and confused in her answers, but did not complain of feeling ill. She said that she had had a lump there for many years, which would go back when she went to bed, and never gave her any particular trouble. She had never worn a truss.

She was placed under chloroform; and, no impression being made on the tumour by taxis, the skin over its inner surface was divided by a longitudinal incision. After the reflection of the superficial fascia, the whole surface of the tumour was exposed, which now presented itself as a smooth spheroidal mass, with a stalk from its under surface which passed to the femoral ring. The fascia investing this was carefully divided down to what appeared to be sac; and the inner border of the ring itself was notched, but still taxis failed to return any portion of the mass. Then it was determined to open the sac; and a thin layer was accordingly raised from the front aspect of the tumour and divided. This was repeated again and again until a depth of three or four lines had been reached. It was then obvious that the substance which the tumour here presented was something more than thickened sac; but all present were doubtful of its nature. The divided surface was whitish, soft, and uniform; and the rest of the mass was so soft and fluctuating that it gave to those who felt it the impression of a cavity within. Upon now carefully examining the under surface of the tumour, the appearance of the sac, with intestine beneath, was so marked that the first layer was raised and divided, when a knuckle of tolerably healthy intestine came at once into view. Then the incision was carried upwards through the inner portion of the neck of the sac, and the loop of intestine was easily returned. There remained now the empty sac, with this extraordinary mass forming its front wall, and still as large as half an orange; but by carefully dissecting between it and the ring, it was gradually so far isolated that there was at length no hesitation in removing the whole of it, with the enlarged glands attached to it below. Upon section and further examination, it proved to be a lymphatic gland greatly enlarged, but not at all hardened—in fact, with a texture softer than natural; so soft, indeed, as still to give a sense of fluctuation when felt between the fingers. There was not the least evidence of suppuration, or of any morbid fluid or of previous inflammation, but it presented all the characters of simple genuine hypertrophy; and this