walls. The disease thus was most likely typhlitis, or inflammation of the colon, in the first instance, leading to ulceration of the coats, rupture, and perforation. This perforation took place into the surrounding cellular tissue, setting up inflammation in this structure (perityphlitis), terminating in the formation of an abscess, which burst between the liver and the colon on the one hand, and the abdominal walls on the other. About ten days before death, gangrene set in, the discharge ceased, the wounds became dry and glazed, covered with ashy-grey sloughs, and the patient rapidly succumbed to exhaustion on the forty-third day of the disease. *Post mortem*, the liver was found to be firmly adherent to all the surrounding structures; it weighed 5 pounds 7 ounces; it was uniformly enlarged and very hard to the touch. A small superficial abscess, about the size of a walnut, was situated anteriorly between the right and left lobes. On section, numerous pyæmic deposits were found, the cut surfaces appearing pale and nutmeg-like. The intestinal lesion has been already described.

CASE II.—Gunner T. S., R.H.A., aged 28, service 9 years and 8 months, Indian service 2 years and 9 months, was admitted to hospital on September 9th, 1883, with diarrhœa. On September 12th, hepatic symptoms were first noticed, and the diagnosis was accordingly changed to hepatitis. The patient had a sallow cachectic look, with a semi-jaundiced skin. The early symptoms were those of congestion: pain and tenderness in the right hypochondrium, rigors, sweats, heightened temperature, cough, nausea, fixation of the right side, and increased area of hepatic dulness. These symptoms continued much the same, except that the evening temperature and dyspnoea increased, until the night of October 11th, when the abscess burst into the right lung, and a copious expectoration of shreds of liver-tissue mixed with pus took place. Pneumonic complications set in, and the disease ran a very rapid course, marked by great prostration, profuse sweats, hectic, high temperature, and intense thirst, death taking place on October 19th. The *post mortem* appearances were as follows. The liver was much enlarged, weighing 84 ounces. It was adherent to the diaphragm and colon; its upper surface was also adherent to the lower portion of the lung, the diaphragm at this part being ulcerated through. Thirty-five ounces of pus were removed from the pleural cavity. The right lung weighed 44 ounces; its upper third was healthy, but the lower two-thirds were softened and infiltrated with pus, breaking down on the slightest pressure. The lower portion of the lung was adherent to the upper surface of the liver, forming an intervening cavity filled with pus and disintegrated liver-tissue. The other abdominal organs were healthy.

CASE III.—Private C. S., 9th Lancers, aged 29, service 10 years, Indian service 8 years, was admitted on December 14th, 1882, for acute hepatitis, in a state akin to collapse. His habits were said to be temperate. His appearance was anæmic; his tongue coated; pulse quickened and intermittent. He complained of nausea, cough, chills, impaired appetite, failing health, pain in the right side, inability to lie at full length, and hepatic uneasiness. Percussion showed that the upper boundary of the liver was abnormally high, anteriorly and posteriorly, but there was no distinct bulging or enlargement of the side. Any attempt to lie in the recumbent position brought on an immediate and most distressing feeling of suffocative dyspnoea. All these inflammatory symptoms gradually subsided, but he still complained of some pain posteriorly below the scapula, and of shortness of breath on exertion. He was discharged from hospital on January 19th, 1883, but had to be re-admitted a month later, owing to his condition having become worse. The same night an abscess of the liver burst through the right lung, the discharge (a bowlful) consisting of reddish-brown pus, mixed with salivary and bronchial secretion. The temperature rose to 102.6°, but fell to 100° the following morning, and to normal the third day, since which, up to the date of his leaving the hospital three weeks later, the thermometer did not register above 99°. No signs of serious lung-mischief developed themselves, and the case is interesting as illustrating how insidiously the liver may suppurate, as well as how resolution may take place after rupture, with little or no constitutional disturbance. Under a course of tonics and careful dieting he gradually got better, and was invalided to England on March 16th, 1883. From a letter subsequently received from him after his arrival at Netley, it appeared that he was greatly improved by the voyage home, and was rapidly regaining his strength under the influence of change of climate and sea-air.

CASE IV.—Farrier-Sergeant J. P., 9th Lancers, aged 33, service 13 years 7 months, in India 8 years 8 months, was admitted on October 20th, 1883. He acknowledged being a free liver. He served in the late Afghan war, and stated that he suffered from irregularity of the bowels ever since. He had never had dysentery. He went to

Simla last September on a month's furlough, and then, for the first time, began to complain of pain in the right side. After being under treatment a short time, he was sent to Umballa, and admitted to the station hospital. On admission, he complained of pain in the hepatic region, rigors, nausea, and vomiting; in general appearance he was prematurely aged; his face was anæmic and slightly jaundiced. There was uniform enlargement of the liver, with well marked bulging in front, below the costal cartilages; tenderness on pressure also existed, and percussion gave rise to giddiness and faintness. An abscess was diagnosed, and was aspirated, on October 26th, with Dieulafoy's instrument, 41 ounces of thick, sanious, bile-stained pus being evacuated with temporary relief to his sufferings. Five days afterwards, his temperature began to rise again, and the swelling re-appeared; persistent vomiting also came on, probably from pressure, and his general condition indicated great exhaustion. It was then decided to make a free opening under Listerian precautions. Accordingly, under chloroform, an incision about one inch and a half long was made into the most prominent part of the tumour, just below the ribs, in front, beside the epigastrium; and the dissection was carefully carried through the abdominal wall. When the knife divided the capsule and a thin layer of liver-tissue, a large quantity of pus mixed with bile gushed forth immediately. The cavity of the abscess was then washed out with a tepid carbolic solution of 1 in 80, a large drainage-tube introduced, and several layers of carbolised dressing placed over all; the greatest care being taken to prevent the entrance of atmospheric air by fixing strips of adhesive plaster along the borders of the dressing. The whole operation was conducted under strict Listerian precautions, with the spray-apparatus in full working order. Treatment was subsequently directed to supporting the patient's strength, and obviating decomposition in the abscess-cavity and extension of the mischief. His condition steadily improved, the edges of the wound remained healthy, no signs of gangrene or sloughing appeared, temperature fell, vomiting ceased, appetite returned, and the cavity is now completely healed up and cicatrised over. He feels quite well, walks about daily, and is rapidly recovering his strength.

The abscess was single, and must have been of the size of a cocoon, or larger; it was in every way suitable for operation, especially as adhesion was assumed to have taken place, so that there was no danger of extravasation into the peritoneum. Further recourse to aspiration would have been to wait upon death; it might have put off the fatal termination for a few days, but the ultimate issue would never have been in doubt. All the circumstances of the case were very instructive, and afford strong evidence of the benefits to be derived from, and the greater prospects of recovery under, antiseptic treatment.

ON SOME CLINICAL AND PATHOLOGICAL POINTS IN CEREBELLAR DISEASE.¹

By W. B. HADDEN, M.D., M.R.C.P.,

Demonstrator of Morbid Anatomy, and Medical Registrar to
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THE points to which I shall call your attention are mainly pathological. At the same time, I venture to hope that the clinical details, to which I must allude, may not be without their value. The affections of the cerebellum with which I shall deal are (1) simple cysts, and (2) abscesses.

1. C. S., aged 23, was admitted into St. Thomas's Hospital, under the care of Dr. Bristowe, on April 10th, 1883. She had been married three years, but had had no child and no miscarriage, and her catamenia had continued regular but scanty. She had been subject to much ill-treatment ever since her marriage, and had been much bruised about the head.

Her present illness came on nine months before admission, with pains all over her head, but mainly in the occipital region, which she likened to having her head taken to pieces, and sickness, which occurred independent of meals. The headache and sickness had continued ever since, and had been associated at times with noises in the ears. About three weeks before admission, the right hand and arm suddenly became useless, and a feeling of pins and needles was felt in the hand and forearm. These symptoms only lasted for two or three hours, but they recurred many times since, and, accompanying

¹ Read before the South London District of the Metropolitan Counties Branch

them there had been weakness and numbness in the right leg. At about the same time as the paralysis the eyes became painful, and her sight impaired. The affection of sight increased; she was troubled with muscæ; the outline of objects had become indistinct, and occasionally she had temporary attacks of blindness. For two or three months she had suffered from giddiness.

The patient was somewhat dull and slow to answer, but sensible, and free from delirium. She complained mainly of paroxysmal pain in the occipital region. She had no recognisable paralysis of any of her limbs, or of any of the muscles of the face or eyes; but she walked with a staggering gait, and had to be supported in order to protect her from falling. The pupils were equal, and not weak to light. There was a little nystagmus. The sight was dim, but she had no colour-blindness. There was intense neuro-retinitis; the discs were much swollen, the vessels blurred, and around the discs was a zone of radiating hæmorrhages. She complained of tinnitus, but seemed to hear well. There was no impairment of smell or taste. The tongue was flabby, red, tremulous, and was protruded straight. There was no vomiting, rigidity, or tremulousness in the extremities. The patellar tendon-reflex, however, was exaggerated. Pulse 66, full, regular; the temperature was normal; respiration 16. There were no signs of thoracic or abdominal disease. The urine was of specific gravity 1020, free from albumen. The bowels were constipated.

During the next few days she remained in the state above described, suffering from occipital headache, which was liable to paroxysmal aggravation, and at times was so severe, that she could hardly lay her head on the pillow, vomiting occasionally without any obvious cause, but in association at times with pain between the shoulders, and with no sign of paralysis on the right side.

On the 15th, Dr. Bristowe remarked that there was no nystagmus, no paralysis of the ocular muscles, no relative weakness of the right arm or leg, and no complaint of giddiness, but that she staggered in walking, like a drunken person. Pulse 66; temperature normal.

The symptoms still continued without marked change. The headache was severe; there was occasional vomiting; she slept badly; but her eyesight became so imperfect, that she could not recognise the number of fingers held up at a foot from her face.

On the 18th, eight leeches were applied, two to each temple, and two over each mastoid process.

On the 19th, the patient had slept well in the night, and the pain in the head was much better this morning than it had been. She complained, however, that her eyes were sore, and that she could not see anything. On careful examination, it was concluded that she really was absolutely blind, and her eyes were constantly oscillating when opened. She answered questions rationally, but talked to herself a good deal. There was no sickness. Pulse 108.

On the 20th, it was reported that the patient screamed out frequently during the night, and this morning seemed much worse. She was in great pain, would not answer questions, and was quite blind. There had been no more vomiting. Pulse 90, slightly irregular; respiration irregular. Between 11 o'clock and noon she again screamed out a good deal; then she suddenly became quiet, and was found to be comatose and livid. She died a little after one. She had no convulsion at any time, and her temperature, which was occasionally subnormal, never exceeded 98.4°.

Necropsy.—The body was somewhat emaciated. The calvaria was thick, otherwise healthy. The convolutions on the convexity of the cerebral hemispheres were flattened; the sulci were obliterated, the surface dry. There was a great deal of subarachnoid fluid, however, at the base of the brain. The pia mater and arachnoid were generally healthy, but the smaller vessels and the larger veins were congested. The brain-tissue, for the most part, was healthy, but the lateral ventricles were somewhat dilated, and the fornix was softened. Imbedded in the left lobe of the cerebellum was a globular cyst, about an inch in diameter. The walls were thin, fibrous, and colourless, and continuous by their deep surfaces with the neuroglia. The contents were a limpid colourless fluid, which escaped on removing the brain. There was no congestion, induration, or morbid growth around the cyst; there were no traces of old hæmorrhages in its walls, and no fibrous tissue occupied the cyst, as is usually the case with cysts due to hæmorrhage. There was no hydatid membrane. The cyst was surrounded on all sides by white matter, which was somewhat softened, and it approached the posterior surface of the lobe. There were several small hæmorrhages around both optic discs. All other organs, including the spinal cord, were healthy.

As to the origin of this cyst I can say nothing. Dr. Sharkey, my colleague in morbid anatomy at St. Thomas's Hospital, exhibited a similar case at the Pathological Society two years ago. It is published in vol. xxxiii of the *Transactions*. In this instance there was a large

cavity occupying the upper half of the right lobe of the cerebellum, extending a little way into the left lobe. The internal surface was quite smooth, and appeared to consist simply of condensed nerve-substance, there being no sign of a special cyst-wall. The cavity contained an opaque, white, membranous mass, which was found, on microscopical examination, to consist of fibrin. It is highly probable, as Dr. Sharkey remarks, that it was a simple cyst, and neither hydatid, nor the result of previous hæmorrhage.

2. I will next speak of the association of ear-disease with abscess of the cerebellum. On the causal relation between these conditions I need not dwell; it is a matter of everyday knowledge. There are, however, two points—one pathological, the other relative to diagnosis—to which I wish specially to call your attention.

On January 2nd, of the present year, a boy, aged 12, was admitted into St. Thomas's Hospital under the care of Dr. Bristowe. His family history was bad. Five of his brothers and sisters had died of phthisis. Four months ago a discharge from the ears came on, without evident cause, and persisted until a fortnight before admission. It then ceased, and he began to complain of headache, especially in the occipital region. Very shortly he became unable to walk properly, and had constant vomiting. He lay in bed with his eyes shut, and feared the light. The pupils were dilated, equal, but rather sluggish. There was marked double optic neuritis. He had a double convergent squint, seemingly due to weakness of the external recti, of which the left was the more affected. An abscess was found behind the right ear; this was opened, and about three ounces of healthy pus came away. Some bare bone was then discovered in this situation. Shortly before death, Dr. Bristowe noted that the respiration occasionally ceased for a few seconds, that the squint still continued, and that the left pupil was much smaller than the right. Now and then he uttered a loud cry, not unlike that often observed in acute hydrocephalus.

Towards the end he had a series of fits, in which the body became arched backwards and the head retracted. His temperature was normal throughout. He died on the second day after admission.

At the *post mortem* examination, I found an abscess in the right lobe of the cerebellum, extending about a third of the way across the left lobe. The abscess was near the upper surface, separated only by the cortex and a little of the subjacent white matter. The cavity had a distinct lining membrane, and contained about an ounce of pus. There was no meningitis at the base, and no tubercles were visible. The third and sixth nerves were healthy in appearance, and were not pressed upon. The dura mater in the posterior fossa, and over the right petrous bone, appeared quite healthy. There was no caries of the temporal bone visible on removing the dura mater. The venous sinuses were natural, and contained only *post mortem* clot. The membrana tympani, on the right side, was partially detached. In the middle ear there was some soft reddish material, probably inflammatory. There was a streak of carious bone-tissue extending from the posterior wall of the tympanum through the mastoid cells. The malleus, incus, and stapes were not diseased.

The diagnosis of this case, during life, was by no means certain. The family history of phthisis, the squint, the optic neuritis, suggested the possibility of tubercular meningitis. The ear-disease, prominent and significant as it was, was not altogether in favour of abscess.

It is more than probable that caries of the temporal bone is sometimes due to tubercular disease, and that tubercular meningitis may occur secondarily, just as it does in the case of a tubercular tumour of the brain.

In a paper read before this Branch a few months ago, Dr. Bristowe gave some striking examples of the difficulty in diagnosing between abscess and tubercular meningitis. It is worth mentioning that, in the case just described, there was absolutely no fever. In tubercular meningitis, also, it sometimes happens that the temperature varies little from the normal.

An interesting pathological problem is suggested by this case. How did the ear-disease give rise to the cerebellar abscess? The caries was deep-seated and comparatively insignificant; the surface of the bone at the base of the skull was perfectly sound; the dura mater and venous sinuses were natural. Was the inflammation transmitted by a phlebitis of the small veins; or did the suppuration extend along the facial and auditory nerves, and so reach the cerebellum? I confess I am not in a position either to deny or to affirm the truth of these hypotheses. Although a satisfactory explanation may not be forthcoming, there is no doubt that the ear-disease and the abscess were cause and effect.

Last year, a young man came under the care of Dr. Ord at St. Thomas's Hospital suffering from severe headache, pain at the back of the neck, delirium, and smart fever. He had had discharge from the

ear and deafness for two years. During the previous fortnight, he had felt languid, and had been sick and chilly. Two days before he came into the hospital, he took to his bed, with headache, vomiting, and shivering. On admission, his arms, chest, and abdomen were covered with bluish blotches of an uniform tint. They seemed to be subcutaneous, and did not fade on pressure. Their nature was not apparent, even at the *post mortem* examination. They were possibly due to local stagnation of blood, but no sign of hæmorrhage was made out. There was a large abscess, involving chiefly the right lobe of the cerebellum, containing fetid pus. There was also simple meningitis at the base of the brain. The temporal bone on the right side was extensively diseased, and there was a little adherent clot in the right lateral sinus. The organs generally were in a septicæmic condition.

The discoloured patches of the skin were probably connected with this septic state. During life, they tended in no slight degree to obscure the true nature of the case.

I had originally intended to say something of tumours of the cerebellum, but I will not venture to trespass further on your time.

Finally, I must express my thanks to Dr. Bristowe and Dr. Ord, to whom I am indebted for the use of the cases which have served to illustrate my paper.

CASE OF SCLERODERMA AFFECTING THE LEFT LOWER EXTREMITY.¹

By T. SYMPSON, F.R.C.S.,
Surgeon to the Lincoln County Hospital.

A FEEBLE, ill-nourished girl, aged 5, with light brown hair and blue eyes, was admitted under my care into the Lincoln County Hospital on August 14th, 1882, on account of distortion of the left foot.

Inspection showed that the skin along the inner and anterior aspect of the limb, for a breadth of three inches at the groin and one inch on the dorsum of the foot, was pallid, glossy, and irregularly mottled with yellowish-brown spots. To the touch, the skin was very tense, resistant, and elastic. The margins of the patch were irregular and of a pink hue. Sensibility appeared to be unimpaired. The tendon of the tibialis anticus was rigidly contracted, and the foot was drawn up to an angle of 30° with the leg. The second toe was bent, so that its tip rested on the dorsum of the first phalanx of the great toe. The ankle-joint admitted of slight movement, but the knee was almost perfectly fixed. The left leg was half an inch shorter than the right. In walking, the girl bore her weight upon the left heel. The urine was non-albuminous, acid, of specific gravity 1025.

The maternal aunt of the girl stated that, three years before admission, the girl was kicked on the knee by the child of a neighbour, after which the joint became stiff. A few months subsequent to this, she fell on the causeway and bruised her knee; this was followed by hardening of the skin over the patella, which condition gradually extended to the thigh and leg. She has one sister, who is healthy. Her father, aged 28, enjoys good health. Her mother died at the age of 26, from "having caught cold" soon after her confinement.

The girl was put upon half diet, was ordered to take three minims of liquor arsenicalis thrice daily, and to have the affected part of the limb well anointed with vaseline. Under this treatment, the patient slowly improved, the knee becoming more movable, and the induration of the skin less marked, until September 10th, when she had an attack of subacute bronchitis, from which she speedily recovered.

On September 18th, the tendon of the tibialis anticus was divided subcutaneously. After a severe rigor on October 20th, the whole limb became erythematous; two sloughs, each of the size of a shilling, formed over the patella, and there was considerable constitutional disturbance. The patient was ordered milk-diet, a dose of castor-oil, and frequent doses of salines, under which treatment the symptoms subsided in four days; but the knee was left perfectly stiff, and the skin resumed its former denseness.

Subsequently, by degrees, the skin became more pliable and more easily pinched up; a well marked band of pigment appeared along the inner aspect of the limb; the foot was held at a greater angle to the leg (about 45°); the movement of the ankle was more free; and the child gained flesh and strength. She was discharged on January 8th, 1883.

When she was readmitted on January 29th, the limb was found to be smaller in all its dimensions, the induration of the skin had lessened, and the brown discoloration had become darker in tint. The tibia was bent with a concavity forward in its upper third. The girl was placed upon the same treatment as before, with the addition, on March 27th, of a drachm of cod-liver oil twice a day.

¹ Read before the Midland Branch.

One evening the night-nurse, when coming upon duty, was greatly horrified to find the child lying with the affected limb so turned up alongside of the trunk that the foot was placed behind the back of the neck, but was reassured on learning from the other nurses this was a by no means uncommon position for the patient to assume.

The measurements of both lower limbs on May 15th were as follows: Right femur, 9 inches; right tibia, 9 inches; circumference of upper part of right thigh, 12 inches; above patella, 8½ inches; middle of calf, 8 inches; left femur, 9 inches; left tibia, 7½ inches; circumference of upper part of left thigh, 9½ inches; above patella, 6½ inches; middle of calf, 6 inches. Thus the left limb was one inch and a half shorter than the right.

As it was thought best for the girl to return to her home in the country, she again left the hospital on May 21st.

I have brought this case forward as an instance in which some of the phases that occur in the course of scleroderma were extremely well marked. Although this disease is considered a rare one, those of our members who attended the International Medical Congress held in London in 1881, will recollect that, in the department for exhibition of living patients, a good many examples were shown illustrating its different stages. These stages admitted division into an active one, during which deposition of morbid material took place; a contractile stage, in which various deformities were occasioned by the process of shrinking undergone by that material; and a stage of recovery, in which the skin and other tissues that were affected resumed, more or less, their normal condition; these different stages varying in their duration from a few months to many years.

Hebra was of opinion that those cases in which the diseased patches resemble the integument of a frozen corpse, run their course more rapidly than those in which the integument is tightly stretched, thinned, and pigmented, and he suggested that some intrinsic difference might exist between them.

With regard to my patient, it was clear that, when she first came under observation, the malady, as shown by the pink tint of the irregular margins, the small amount of pigmentation, and the slight degree of contraction of the patch, had barely emerged from its first stage; whereas, when she last left the hospital, the greater portion of the skin previously affected had become so supple, that it could be easily pinched up, and a long band of pigment had made its appearance on the inner aspect of the limb. There seems reason to hope, from what is known of the history of similar cases, that the girl will continue to make favourable progress, and that the affected tissues may ultimately recover to a considerable extent their former condition, although the limb must remain distorted, and more or less atrophied.

As it rarely happens that death occurs during the course of scleroderma, we seldom are favoured with an opportunity of investigating minutely the changes undergone by the skin in that complaint. The members may therefore be interested to examine a double-stained microscopic section of skin from a case of that disease, which has been kindly prepared for me by Dr. Palmer. In it are well displayed increase in the number of cells in the rete Malpighii, enormous increase in the amount of connective tissue, and atrophy of the hair-bulbs, and of the subcutaneous fat. The section was obtained from the skin of the abdomen of a gentleman, aged 50, whom I saw in consultation three years ago, and in whom, with the exception of the head and neck, the disease was universal. The disease lasted thirteen months, and followed exposure to draughts after a hot bath. Death occurred from phlegmonous erysipelas, due to a chill consequent on the patient having sat in a room without a fire for two hours on a very cold day.

BEQUESTS AND DONATIONS.—Mr. Joseph Nutter, of Halifax, has bequeathed £1,000 to the Halifax Infirmary; £1,000 to the Bradford Infirmary; £500 to the Bradford Fever Hospital; £500 to the Ripley Convalescent Home; £500 to the Royal Albert Asylum for Idiots and Imbeciles of the Northern Counties at Lancaster; £100 to the Bradford Eye and Ear Infirmary; and £100 to the Ilkley Bath Hospital.—Mr. Richard Haworth, of Mersey Bank, Didsbury, has bequeathed £500 to the Manchester and Salford Hospital Sunday Fund.—Mr. James Hargrave, of Harrogate, has bequeathed £250 to the Leeds Hospital for Women and Children.—The British Home for Incurables has received £200, under the will of Miss C. S. Le Mare.—The Grocers' Company have given, for the seventh time, £100 to the National Hospital for Consumption at Ventnor.—Charing Cross Hospital has received fifty guineas from the Whitehall Cricket Club.—The Victoria Hospital for Children has received £50, per Miss Dorothy Fitch Kemp, towards the support of the "Foxbush" cot.