

motor and sensory roots of the fifth on the right side, whilst there was also paralysis of the right half of the palate. The tongue was protruded straight; the vocal cords were unaffected; there was no optic neuritis. The symptoms had commenced with headache two years previously, followed by paralysis of the right external rectus and right side of the face six months afterwards, and a few months later by complete deafness in the right ear. The limbs were not affected. The patient complained of giddiness, and reeled in his walk, whether the right eye was shut or open. For some time the diagnosis was undecided between coarse disease of the middle fossa involving the nerves affected and tumour of the pons or medulla oblongata; but later (in spite of active mercurial and iodide treatment) there arose much difficulty in swallowing, whilst the legs began to lose so much power, and the tendon-reflex was so highly exaggerated in all four limbs, that when death occurred in January Dr. Buzzard was able to express the opinion, before the necropsy, that a tumour of the pons affecting the cerebellum by pressure would probably be found. A post-mortem examination revealed a tumour involving the posterior half of the right side of the pons and the anterior inferior portion of the right hemisphere of the cerebellum, concealing the flocculus and displacing the amygdala and biventral lobule downwards, and compressing the right middle peduncle of the cerebellum. The fifth, sixth, and seventh nerves were involved in the tumour, which also exerted so much indirect pressure upon the right side of the bulb that the right olivary body was much smaller than the left. The preparation was exhibited, and Dr. Buzzard pointed out that, although the growth from its position must have pressed upon the glosso-pharyngeal and vagus nerves, it did not touch the spinal accessory or hypoglossal. As, however, not long before death the tongue was inclined to the right, the hypoglossal nucleus must have suffered, and doubtless also, therefore, that of the spinal accessory above it. He remarked that the case on this account failed to render help as regards the vexed question of the innervation of the levator palati; the portio dura, glosso-pharyngeal, and spinal accessory (to each of which it had been attributed) being all afflicted either in their trunk or nucleus. On the other hand, the giddiness and reeling had doubtless been due to lesion of the middle cerebellar peduncle. The middle lobe of the cerebellum appeared to be quite out of reach of any even indirect pressure.

Dr. BUZZARD also exhibited a male patient, aged forty-one, suffering from double wrist drop, with a strong superficial resemblance to that which is caused by lead, but which he was disposed to attribute to alcoholic neuritis. The patient, an engine-fitter employed in ocean-going steamers in the tropics for many years, was suddenly seized a year ago, according to his own account, with loss of power in the hands and lower extremities. There was numbness of the hands, and the fingers were semi-flexed. In trying to walk the feet were dragged, and he was unable to walk without help for two or three months. The hands did not improve in the same proportion as the legs. At the present time the patient walks well, and his knee jerks are normal. The wrists are dropped. The radial and ulnar extensors and supinator longus all need strongly induced currents to produce contraction; the common extensor of the fingers does not respond to the strongest currents. There is slight atrophy of the thenar and hypothenar eminences. There is albuminuria and commencing retinitis in one eye. In the past history gout had attacked the right big toe three times, and there had been slight ague on four different occasions. The patient had drunk freely of spirits and beer for years, and owns to about fourteen ounces of whisky daily, besides malt liquor. He had had no pains and no numbness of legs. Dr. Buzzard pointed out that, in spite of the strong superficial resemblance, the case differed from at least the vast majority of examples of lead palsy in that the supinator longus was affected equally with the extensors of the wrist. The man had had nothing to do with lead for eight years, and there was no blue line. If, as he supposed, it was a case of alcoholic neuritis, it was a somewhat exceptional example, for the lower extremities in that disease were usually more seriously affected than the upper. In reply to questions, he said that as regards beri-beri, there was the same proclivity for the lower extremities to suffer the brunt of the disease. When attacked, the ship was off Brazil; the patient had not landed, and was the only person ill on board. He did not think it was a case of beri-beri. There was no history of

syphilis. There was not any conclusive evidence against the disease being anterior poliomyelitis, but the numbness of the hands at the onset, the symmetrical distribution of lesions, and the participation of the supinator longus with the extensors in the paralysis were characters opposed to this view.

Dr. HADDEN exhibited a patient who had sustained an injury to the Brachial Plexus. Fourteen weeks previously the man fell thirty-six feet. Both wrists were severely bruised, but the left shoulder was quite unaffected in this way. The left upper extremity was at once found to be paralysed. The muscles affected were those supplied by the nerves coming off from the posterior and outer cords of the brachial plexus. All the affected muscles presented a marked degree of the reaction of degeneration. There was loss of sensation of the forearm, limited to the area supplied by the cutaneous branch of the musculocutaneous nerve and by the radial nerve. The left pupil was slightly smaller than the right, but it was active to light and during accommodation. The globe of the eye and the palpebral fissure were natural. The pulse of the left radial was unaffected. It was certain that the damage to the plexus was above the clavicle, but it was possible that the tear was very high up. The author brought forward the case mainly with the view of eliciting opinions as to an operation for resecting the affected nerve trunks.—Mr. VICTOR HORSLEY thought that the lesion in this case might be narrowed down to the sixth cervical nerve. He had found by experiment that this was the nerve injured in such an accident. An exploratory incision might be made.

Drs. HADDEN and SHERRINGTON exhibited sections to show the course of the ascending antero-lateral tract. The case was one of typical locomotor ataxy. The columns of Goll and the fasciculus gracilis in the medulla were densely sclerosed. The posterior root-zones were also degenerated throughout the cord, but more in the lumbar region than elsewhere. Between the fifth sacral nerve and the highest dorsal region there was some degree of lateral sclerosis, and at the level of the seventh dorsal pair the change in the lateral columns extended farther forwards, blending with the deep parts of the antero-lateral tract. At the level of the second dorsal pair the degenerated antero-lateral tract reached the periphery of the cord and extended upwards into the medulla. In the medulla it was traced as high as the upper part of the decussation, but above this point it disappeared as a compact bundle. Possibly it passed into some of the cell groups. In the medulla the tract was wedge-shaped, with the base towards the periphery and reaching up to it. It lay in front of the substantia gelatinosa, separated only by the deep arciform fibres. The superficial arciform fibres passed intact right through the degenerated area. The authors called attention to the fact that in the cord the antero-lateral tract became more extensive as the posterior root of this became more healthy, thus suggesting a supplemental relation. The direct cerebellar tracts were not affected.

Dr. HALE WHITE showed the brains of two rabbits, in both of which he had induced a considerable rise of temperature by destroying the anterior part of the corpus striatum. In one of them the temperature remained raised for a month. There was nothing abnormal in either animal save the pyrexia.—Mr. VICTOR HORSLEY considered the question one of much importance in diagnosis.—Dr. SHARKEY related a case of acute disease of the corpus striatum without pyrexia.—Dr. JACKSON and Dr. SAVAGE referred to cases of general paralysis of the insane with hemiplegia accompanied by pyrexia.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Treatment of Advanced Conditions of Equino-varus.— The Surgery of the Thyroid Gland.

A MEETING of the Surgical section was held on Jan 20th.

Mr. SWAN read a paper on the Treatment of Advanced Conditions of Equino-varus. It can be positively asserted that all cases of congenital equino-varus are perfectly curable by the recognised and scientific treatment as ordinarily followed, if it be thoroughly carried out before the expiration of the first year of life, or before walking has commenced, subject to the accident of relapse, which may occur through carelessness or ignorance in not maintaining correct position. After three or four years have elapsed a modified result may

be obtained, but here the treatment will be prolonged and difficult, and the degree of success will depend on the condition of each individual case, and the tendency to relapse will extend over a lengthened period. When the person afflicted with equino-varus has reached the age of ten years, either with early treatment and subsequent relapse, or without treatment, features are presented which preclude the hope of success being attained by tenotomy and extension. The tarsal bones are thickened, and the typical distortion is increased. The large adventitious bursa is densa, and includes in its base the cuboid and the tarsal end of the fifth metatarsal bones, and may extend to a greater or lesser degree on the dorsum of the foot. The fifth metatarsal bone is not alone deflected inwards, but forms a distinct curve, which may easily be demonstrated on the living subject. In such a case there can be no other means adopted with the hope of obtaining rectification of the deformity than ablation of a portion of the tarsal bones. The portion removed will consist of the anterior three-fourths of the cuboid bone, all the external cuneiform, except its posterior part, and the proximal extremities of the third, fourth, and fifth metatarsal bones, and the apex of the wedge will consist of a portion of the middle cuneiform. The mobility of the foot will remain almost unimpaired. This can be explained by the fact that the joints, which principally allow of movement in the unamputated foot, are not interfered with—namely, that between the calcis and cuboid, astragalus and scaphoid, likewise that between the scaphoid and cuneiform bones; an alteration, in fact, only occurs of the joints between the three outer metatarsal and the external cuneiform and cuboid, in which the normal movement is limited. As the metatarsal bones have their epiphyses at the distal end, it is probable the development of the foot would not be interfered with. Thirty-four cases had been selected by Mr. Swan as suitable for operation since 1876. Many of those have been shown at the sectional meetings, and were now illustrated by casts of the limbs before and after operation.

Mr. Foy read a paper on the Surgery of the Thyroid Gland. After tracing the history of operations for the ablation of the gland and extirpation of tumour, he compared the modern operation of Mr. P. H. Watson with that recommended and practised by Desault at the Hôtel Dieu in 1791. He condemned the many minor operations of setons, caustics, injections of irritants, and tapping, and gave the history of a successful removal of a cysto-adenoma from the right lobe of a young married woman's thyroid. The bleeding, which was very profuse, was stayed by clip forceps and plugging of the wound with new sponges.—The PRESIDENT said that Mr. Patrick Heron Watson had advocated the operation for the complete removal of the gland, while at the same time indicating that the surgeon must be prepared to see the patient die on the table—a fatality which occurred at least once in that distinguished surgeon's practice; and he dwelt strongly on the necessity of leaving the capsule unaltered, especially the capsule surrounding the vessels.—Mr. STORY inquired what the indications were for operating on tumour in the thyroid gland at all. Was it considered that the operation might be undertaken for cosmetic reasons, or only for the sake of respiration or deglutition?—Mr. KENDAL FRANKS, having operated three times, did not think the size of a tumour in the neck as at all a guide to operative procedure. A large unsightly goitre was not by any means the usual one for removal. Hence the question of cosmetic reasons might be dismissed. But small tumours indicating a tendency to press backwards and sometimes down underneath the top of the sternum, causing great distress and dyspnoea, endangered life. In his own three cases he dealt with cysts, and not with hypertrophied thyroids themselves. He once met a large thyroid which protruded a great deal, causing dyspnoeal symptoms. Having been advised to try a seton, he passed a drainage tube right through from side to side of the thyroid, with the result that he would never adopt such a course again. Multiple cysts and proliferating masses protruded through the two openings. In none of his cases had he enucleated the whole of the thyroid gland. When part of the gland was left there was no fear of myxoedema. But hæmorrhage was the great bugbear, to avoid which Billroth advised against opening the capsule; and still more (though contrary to Billroth's rapid method) success was achieved by taking plenty of time at the operation.—Mr. Foy, in reply, stated that the operation was justified when the tumour was growing quickly, when dyspnoea or dysphagia were marked, or when any evidence

of malignancy was present, and also when the most approved internal and external medication had not given good results. He was not in favour of opening the capsule, but when an adventitious capsule was formed he believed he had no option. Setons, tapping, and caustics, were not free from danger, and in many cases did not give favourable results.

Spastic Paralysis; Ataxic Paraplegia.—Heredity in Hæmorrhagic Purpura.

A meeting of the Medical Section of the Academy was held on Jan. 27th.

Dr. C. J. NIXON made a communication upon Congenital Spastic Paralysis and Ataxic Paraplegia, and exhibited two cases illustrating both diseases to the members of the Academy. The writer divided cases of congenital paralysis into those which were cerebral and spinal in origin, and dwelt at length upon the various conditions with which both forms were associated. One of the cases exhibited was paraplegia, due to compression of the upper part of the Rolandic area during an instrumental delivery by the forceps. In the case of ataxic paraplegia, Dr. Nixon first detailed the evidence which had been afforded by recent investigations as to the probable course taken by the sensory muscle tracts in the spinal cord—viz, in the columns of Goll, the direct cerebellar tracts, and in the short vertical fibres which connect the posterior horns of grey matter at different levels in the spinal cord. The last was the part in which the comma-shaped degeneration was found. In noting the motor paralysis which exists in ataxic paraplegia, special reference was made to the difficulty of distinguishing a lesion of the delicate fibrillary network which connects the terminations of the pyramidal tracts with the network of Gerlach, though a slight lesion in the situation, as being the furthest point from the influence of the trophic centres, would most probably be attended with serious disturbance of the motor function. Dr. Nixon also adverted to the different pathological lesions which might be set up in the cord, the results of which, as regards the intensity of the symptoms and their duration, might be very different. Many cases of the most profound disturbance of both sensibility and mobility got well, though this result was usually considered as phenomenal. Allusion was made to the effect of treatment in certain affections of the spinal cord.—Professor HAUGHTON said the distinction drawn by Dr. Nixon between the sensory and muscular nerves was of great importance, and reminded him of the fact that it was a metaphysician and not a physician who had brought to light the existence of a sixth—a muscular sense. There was one thing they had certainly determined, although the difference was exceedingly small—namely, that the rate of transmission of a sensation and the rate of transmission of an order from the brain to use muscular action differed slightly, and everything seemed to show that the mode of communication with the external world which took place from the sensorial nerves and from the nerves that transmit or give orders for muscular action differed.—Dr. BEWLEY related the symptoms presented by a man suffering from ataxic paraplegia, under his care in the Adelaide Hospital; and Dr. WALTER SMITH mentioned a case in Sir Patrick Dun's Hospital as illustrating one of the most interesting phenomena of spinal diseases—namely, the different modes of transmission of different sensory impulses. A few days before Christmas last a young man complained of a halt in the right leg, and in a few days afterwards a similar halt in the left, with retention of urine, which was followed by incontinence. He was admitted into hospital perfectly paraplegic. In a week or two huge bed-sores formed over the sacrum. For several days after admission the principal phenomenon was almost the complete loss of the perception of painful impressions up to the level of the pelvis. Pricking him with a pin or twisting the skin he did not perceive; yet in all parts of the limbs, down to the very toes, he could feel and localise accurately the touch of a feather, while he was thoroughly insensible to the most painful impressions, and unable to discriminate between heat and cold. The symptoms pointed to acute destructive inflammation of the lower part of the spinal cord. The symptoms and combinations of symptoms of spinal diseases varied so immensely that physiologists were not at present in a position to classify accurately even the groups of symptoms, much less to refer them to distinct pathological changes beyond the degeneration of

the cord, the exact nature of which was not determined.—Dr. NIXON, in reply, said it was not to be expected that all cases of ataxic paraplegia would be precisely similar. On the contrary, they must vary, inasmuch as the pathological changes in any two cases would vary, and accordingly as the disease became more pronounced in the lateral tracts in one case or in the posterior. Dr. Smith's case was of very great value as illustrating what had been noted by the experiments of physiologists—namely, that the ordinary tactile sensations were conducted by entirely different paths from those of common sensibility to pain and temperature. In any case of paralysis the first point to determine was whether it was of a cerebral or spinal nature; if spinal, then the different forms of paralysis existing, and the conduction of certain impulses, whether motor or sensory.

Dr. T. F. KNOTT read a paper on Heredity in Hæmorrhagic Purpura.—Mr. FOY said the treatment recommended in long-continued cases by some of the German writers consisted of dilute sulphuric acid and sulphide of sodium until free purging was produced.—Dr. T. F. POLLOCK said he had a case under treatment which he could not call hereditary, as none of the patient's family had the complaint before her. A lady, aged sixty-seven or sixty-eight, suffered from epistaxis, hæmorrhage of the gums, and purpura all over her forehead, cheeks, and legs. The blood coagulated. He administered iron in large quantities, without accomplishing the good he expected. He also tried large doses of ergot, sulphuric acid, and digitalis, which had some effect, but not what he desired. Then he put her under arsenic, giving her the arsenious hydrochloride of the Pharmacopœia; and that certainly did some service. But what he found most valuable of all the remedies was hazeline, to which the bleeding yielded for the time. The hæmorrhage, however, had returned again, though when he injected the nostrils or washed the gums, the hazeline checked it.—Dr. C. F. MOORE had tried with good effect half to one-grain doses of ipecacuanha and opium, with from two to four grains of Dover's powder, or turpentine and laudanum. By bringing about the action of the liver the hæmorrhage would be relieved.—Dr. KNOTT replied.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

A MEETING of this Society was held on March 1st, Dr. DE BARTOLOMÉ, President, in the chair.

Apoplexy.—Dr. DYSON showed some specimens from a case of apoplexy. The patient, aged thirty-one, was admitted to the General Infirmary in the apoplectic condition, and died the day following. His previous history was singularly free from illness of any kind, the man never having lost a day's work. He was comatose; head turned to the left; pupils contracted; left conjunctiva insensitive, right much less so; he moved his right arm, but not his left—sensation was abolished apparently in the left arm. Post-mortem: There was a large hæmorrhage in the right optic thalamus, which had burst into the ventricle, pierced the septum, and invaded the left ventricle. Heart: left ventricle greatly hypertrophied; valves fairly healthy; well-marked early stage of atheroma of aorta. Kidneys both small and granular.

Ulceration of the Popliteal Artery following Injury.—Mr. COOMBE read the notes of this case. W. H.—, aged fourteen, was admitted into the General Infirmary under the care of Mr. Jackson, with a lacerated wound six inches long, on the inner side of the popliteal space. The wound healed superficially, but suppuration occurred and surrounded the joint, which itself became involved. The pus was let out by free incisions on the opposite side to the wound. On the twenty-first day after the injury considerable hæmorrhage took place from the nearly closed wound, which was arrested by a tourniquet. The same evening, the lad having slightly rallied in response to stimulation, amputation of the thigh was performed; but despite the free use of stimulant enemata &c., the patient rapidly sank, and died shortly after midnight. Examination of the limb showed free burrowing of pus and disorganisation of the joint. The popliteal vein was intact, but the artery was ulcerated through about the middle of its course.

Rupture of the Popliteal Artery followed by Gangrene and Mid-thigh Amputation.—Dr. KEELING related a case of this kind. W. T.—, aged forty-six, was admitted into the Public Hospital and Dispensary on the evening of Dec. 31st, 1887,

with severe contusions of right lower limb and simple fracture of the femur at the junction of the lower third of the shaft. Whilst in a state of intoxication he had been knocked down and run over by a tramcar. The patient had been extremely deaf and nearly dumb since infancy, and for some years had been given to drinking. For three or four days after admission into hospital he remained so delirious and restless that it was found impossible to keep the limb quiet. The leg soon became cold, and gangrene set in, extending gradually up to the knee. On Jan. 9th amputation was performed in the middle of the thigh. On subsequent dissection of the vessels, the popliteal artery was found filled with clot and partially torn through, the external coat remaining intact, the middle and inner coat being ruptured and curled down so as to form a septum across the vessel; the popliteal vein was completely occluded by clot; there was no extravasation at the site of injury to the vessels. The stump has healed very slowly and with much suppuration, but the patient is now likely to recover. The lower part of the femur and the popliteal vessels, mounted by Mr. Banham, were shown to the Society.—Remarks were made by Mr. Jackson and Mr. Garrard.

Clothing.—Mr. PYE-SMITH read a paper on clothing. Considering that the two main objects of clothing were protection from violence and from extremes of weather, and preservation of the natural warmth of the body, he showed that good clothing should accomplish these objects without injury to the body, without interference with its proper movements, without special danger or inconvenience, without needless interference with social distinctions, and without offence to modesty and good taste. Fabrics manufactured from the wool of animals were greatly to be preferred for garments to those made from cotton or other vegetable fibre; woollen goods compared favourably with those of cotton in respect to the following qualities: Conduction of heat, absorption of moisture, porosity, weight, cleanliness, natural colouring, inflammability, strength, softness, flexibility, elasticity, and durability. Their roughness of surface was advantageous, except in the rare cases in which even the finest varieties caused unbearable irritation of the skin. Their shrinking in washing could be prevented by care, and their greater cost was held to be much more than compensated by their greater healthiness. The various articles of male attire were then passed in review, and special stress was laid on the value of socks with separate compartments for each toe, as a preventive to corns and deformity of the toes, and as contributing to their warmth, cleanliness, and natural development. Remarks were made on evening dress and out-door clothing, and the opinion was expressed that the commonest faults in clothing were the use of cotton instead of wool, and the undue tightness of garments for the chest, waist, and feet.—The President, Drs. Porter and Watson, and Messrs. Jackson, Williams, and Atkin joined in the discussion which followed.

At the meeting on March 15th, Dr. HUNT exhibited (a) two large Indurated Glands removed from a child's neck; (b) appliances for receiving the discharges during operations, and securing cleanliness and comfort. They were in use in the Boston (U.S.A.) General Hospital.

Mr. PRIESTLEY introduced a case of Plumbism, a patient of Dr. Dyson's, the only assignable cause being the impregnation of the drinking-water by lead.

Fatal case of Hæmophilia.—Mr. PYE-SMITH briefly related particulars of this case in a man aged forty-seven. He was admitted into the Public Hospital for a wound of the left hand. The hæmorrhage was with difficulty stopped by styptics and pressure, but a fortnight later blood began to be passed per anum, and after losing a good deal for two days the patient suddenly became faint, and died with symptoms of internal hæmorrhage. At the post-mortem examination the stomach was found to be full of soft, clotted blood. The small intestines and the rectum were empty, but covered with blood-stained mucus and small ecchymoses. The colon contained solid fæces. The male children of the patient's mother's sister were all bleeders.

Chorea.—Dr. PORTER read a paper on the etiology of chorea. After alluding to the pathological history of this affection, he briefly summarised some of the more important clinical facts obtained by the Collective Investigation Committee. In forty-nine cases of chorea, which he had himself noted, there were thirty-seven females to twelve males—the usual proportion of three to one, which was a