tion if I state that, though naturally not a small woman, her height being five feet five inches and a half, she weighed only four stone seven pounds, and I could easily make my thumb and forefinger meet round the thickest part of the calf of her leg. The curvature of the spine said to exist was a deceptive appearance produced by her excessive leanness, and the consequent unnatural prominence of the spinous processes of the vertebræ. I could detect no organic disease of any kind. The appetite was entirely wanting, and she consumed hardly any food beyond a little milk, a few mouthfuls of bread, and the like. From the first the patient's improvement was steady and uniform. The way she put on flesh was marvellous, and one could almost see her fatten from day to day. Within ten days all her pains, neuralgia, and backache, had gone, and have never been heard of since, and by that time we had also got rid of all her little pillows and other invalid appliances.

It may be of interest, as showing what this system is capable of, if I copy her food diary on the tenth day after her treatment was begun; and all this, this bedridden patient, who had lived on starvation diet for twenty years, not only consumed with relish, but perfectly assimilated:—

6 A.M.: Ten ounces of raw meat soup. 7 A.M.: Cup of black coffee. 8 A.M.: A plate of oatmeal porridge with a gill of cream, a boiled egg, three slices of bread-and-butter, and cocoa. 11 A.M.: Ten ounces of milk. 2 P.M.: Half a pound of rumpsteak, potatoes, cauliflower, a savoury omelette, and ten ounces of milk. 4 P.M.: Ten ounces of milk and three slices of bread-and-butter. 6 P.M.: A cup of gravy soup. 8 A.M.: A fried sole, roast mutton (three large slices), French beans, potatoes, stewed fruit and cream, and ten ounces of milk. 11 P.M.: Ten ounces of raw meat soup.

The same scale of diet was continued during the whole treatment, and, from first to last, never produced the slightest dyspeptic symptoms, and was consumed with relish and appetite. At the end of six weeks from the day I first saw her she weighed 7 st. 8 lb.—that is a gain of 3 st. 1 lb. It will suffice to indicate her improvement if I say that in eight weeks from the commencement of treatment she was dressed, sitting up to meals, able to walk up and downstairs with an arm and a stick, and had also walked in the same way in the park. Considering how completely atrophied her muscles were from twenty years' entire disuse, this was much more than I had ventured to hope. She has now left with her nurse for Natal, and I have no doubt that she will return from her travels with her cure perfected.

(To be concluded.)

ON HIGH LOCAL TEMPERATURES.

By WILLIAM SQUIRE, M.D., F.R.C.P.

THE excessive temperatures in non-fatal cases, from time to time recorded of late, have been found only at very limited areas, and have mostly had no relation to the general body temperature when that has been obtained in a satisfactory manner. Many of the accidents which might vitiate these exceptionally high readings have long been demonstrated and discussed; now that, in two instances, intentional deceptions have been detected and exposed, it would be well if the recorders of some of the more paradoxical observations would review their experience by the light of those recent examples, and inform us in what circumstances they may correspond or differ. A long attention to surface thermometry, while revealing numerous sources of error, such as undue or unequal warming or covering of the part to be examined, shows some very real and important differences; these deserve careful note, and will some day admit of useful generalisations. As a provisional deduction it may be stated that these natural variations seldom exceed by as much as 4° or 5° that of a corresponding part of the surface, and are still more rarely even a degree above the internal or general temperature of the body. How largely the reverse of this may be possible is well known. Collapse may set in from an intense fever at its height, and the limbs be algid while the head and body burn. During scarlet fever the temperature *in recto* has been 105°, and at the same time only 97° in the skin of the abdomen or in its folds. In the axilla an accurate surface thermometer has marked 103° on the thoracic side and only 98° on its brachial aspect; this was

found in acute pulmonary congestion near the close of chronic lung disease. In right hemiplegia of two months' standing the paralysed arm and the left side of the face were two and three degrees higher than the parts unaffected; the surface temperature of the head over the side corresponding to the supposed seat of cerebral lesion being 1½° lower than the opposite side. From some obscure affection of the cervical sympathetic, probably, an active man thirty years old has a persistent flush on the left side of the face. This is worse when he is heated; on any little exertion or excitement that side of the face and forehead are bedewed with perspiration; the temperature, while he is at rest in a cool room, is 4° higher on the left temple than on the right; it was 90° on the right and 94° on the left temple in the morning of a cold day. A difference of half a degree is frequently found on the two sides of the forehead. The range in health at various times of the day and under varying conditions is usually from 92° to 96°, but the difference between the two sides is seldom as much as half a degree, and the left temple is rather more often the higher than the right. There are some conditions of hemi-anæsthesia and of hyperæsthesia where the symptoms more or less suddenly change from side to side that have a like curious variation in temperature. These cases have a variation of only two or three degrees, and are not limited to hysterical subjects. A temperate man near the age of forty had to lay up for three weeks for pyelitis and renal irritation, with severe headache, chiefly on the left side; in early convalescence with normal temperature *in ore* the right temple was 96·4°, the left 94°, and it was noted as curious that the temperature of the right axilla was only 97·6°, while the left was 98·2°. The following week, during a relapse, the temperature at noon *in ore* was 100·6°, that of the right axilla 101·6°, of the left 100·3°, both temples close on 98°. At night the general temperature was 101°. His temperature on the next day at noon was 98·6° *in ore*, 98·8° *in recto*, right axilla 98·2°, left 97·4°, right temple 94°, left temple 94·5°. Urine pale, sp. gr. 1016, slightly turbid, mucous deposit, a trace of albumen. Pulse 80, respiration 18. Before recovery was complete headaches with loss of sleep recurred with shifting of the increase of temperature from the right axilla and right side of the trunk to the left side, and of the higher head temperature from the left to right, and *vice versa*, more than once. In a contribution of mine on "Surface Temperatures" to one of the medical periodicals in the early part of last year, Mr. J. W. Teale's case of abnormal high temperature is referred to as one of local disturbance. It would be more satisfactory to know, and if Mr. Teale still has notes of the case he may be induced to give some further details, how far any general disturbance of temperature was noted, and in what parts of the body; also whether any evidence of increased action, as by high colour or specific gravity of the urine, or wasting occurred. Any further records of the pulse and respiration rate would be interesting, especially if there was a tendency to hysteria; also the state of the mouth and tongue and the general condition of the surface. Was the thermometer always held in the axilla and surface, and watched during the observation; and, further, were hot bottles in use? Finally, was the patient at the outset liable to a suspicion of deception, and, a circumstance perhaps of more importance to report now, what has been the subsequent medical history of the patient, and what the present state?

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CASES ILLUSTRATING THE SURGERY OF CHILDREN.

By G. A. WRIGHT, F.R.C.S.,

SURGEON TO THE HOSPITAL FOR CHILDREN, PENDLEBURY.

CASE 1. *Pulpy disease of the knee; erosion*.—E. N—, aged thirteen, was first attacked with pain and swelling of the right knee in September, 1879. She was admitted into the Children's Hospital, Pendlebury, in May, 1880, for pulpy synovitis of the knee. At this time there was some effusion into the joint. She was treated by rest on a back splint and Scott's dressing, and discharged improved at the end of June. On Dec. 2nd, 1880, she was readmitted with advanced pulpy disease. There were swelling and tenderness at the outer and inner sides of the

joint, with a "dry, creaking sensation" on palpation, and pain and starting at night. She was treated by strapping over Scott's dressing and a back splint, and improved a little, but on the 21st there was much pain again, which was relieved by warm fomentations. On the 29th extension was substituted for the splint. This treatment was continued till Jan. 22nd, when it was found that her condition was in no way improved, and she was disturbed at night by pain severe enough to make her cry out.

On Jan. 22nd, 1881, a curved incision, such as is adopted for excision of the joint, was made across the front of the knee, laying the joint freely open, but not dividing the ligamentum patellæ. The greater part of the capsule, at the front and sides of the joint, was cut away, as it was softened and infiltrated with inflammatory material; the synovial membrane, which was thick, pulpy, and very vascular, and encroaching on the edges of the cartilage, was cut and scraped away, and some of the cartilage removed at the margins. A softened cavity in the outer tuberosity of the tibia was gouged out and the articular surface of the patella, which was turned outwards for inspection, was scraped, though but little of its cartilage was removed. There was a great deal of pulpy mischief, some recent, some of old standing, and the whole of the diseased material was removed as far as possible. The operation was strictly antiseptic. The wound was closed with silk sutures and drained with india-rubber tubing, the limb being packed in a Gooch's splint. On the 24th the temperature rose to 101.2° , and the joint was full of blood-clot, the tension of which probably produced the rise of temperature. This soon subsided. On Feb. 5th the wound was healing, and there had been no suppuration at all. The blood-clot gave no more trouble, being organised or absorbed, as the view taken of the process may be; there was slight tendency to inward rotation of the limb, which was remedied by an inside splint with a footpiece. On Feb. 16th the wound had quite healed, and, except on the second day, the temperature never reached 100° . The child was fat and well, and free from pain. The knee was dressed seven times in all. On the 21st the splint was removed, and passive movement began. On the 26th, under chloroform, the joint was fully flexed, and one adhesion felt to give way. Passive movement was kept up, and on March 9th the child was sent out with full range of movement and no pain. On April 22nd she came to the out-patient's department—a mile's walk—wearing a Martin's bandage which had been ordered her, and has come regularly since. When last seen, on May 27th, she could walk, run, kneel down on the bad leg, and flex it to its full extent without pain or difficulty; the patella is freely movable. In this case, in spite of the removal of a large part of the capsule, of all the synovial membrane that could be got away, and of the semilunar cartilages, and also of the gouging out of a cavity in the tibia; the child has a knee-joint which is literally as perfect as the other. The case is important and, I think, worth recording as an indication of the probable future treatment of chronic joint disease on the lines already laid down by Professor Lister, both as to the dressing and erosion of the diseased parts, instead of excision of the joint.

CASE 2. *Strangulated inguinal hernia in a boy five months old; tunica vaginalis testis completely closed.*—James T—, aged five months, was admitted on April 20th, 1881. The little patient had had a hernia for two months. The morning before he came in, the rupture suddenly increased in size, and was followed by vomiting. The child has had a cough for some time. When first seen a fair-sized right inguinal hernia was found, which was tense and had resisted taxis previously applied. The child vomited once soon after admission. Chloroform was given and taxis repeated unsuccessfully; the hernia was then cut down upon, and on opening the sac a small quantity of reddish-brown fluid escaped. The sac contained cæcum and vermiform appendix; the parts were considerably but not extremely congested. There was considerable difficulty in reducing the hernia, and it was clear that this would have been impossible without operation. The stricture was high up at the neck of the sac. The testis was not exposed in the sac, but had a complete tunica vaginalis of its own, hence the hernia was not of the form usually called congenital, for it probably lay in the funicular process of peritoneum which, closed immediately above the testis but patent higher up, had become sufficiently distended to fill the scrotum. The hernial sac was separated from the spermatic cord and tied with a chromic

catgut ligature at the upper part of the canal, in order to obliterate it. Catgut drainage was used, and the wound closed with silk sutures. The operation was antiseptic. On the 21st the child slept well after the operation, took a pint of milk, and had its bowels open several times. On the next day the scrotum was red and swollen, and an attack of acute orchitis set in, which lasted with some severity for a week, and then slowly subsided. The wound became fouled by urine after two or three days, and so antiseptic dressings were discontinued. The wound gaped and gave considerable anxiety for some time, but after making a counter-opening at the back of the scrotum it slowly became healthy, and was healed soundly by May 23rd, when the thickening about the testis had also disappeared. The hernia never came down after the operation, and the child was discharged well on May 23rd. The child's motions were curdy, and contained undigested milk for some time, and this continued for a while, even after it was fed on peptonised milk. A small umbilical hernia and phimosis co-existed with the inguinal hernia. The early age of the child for strangulated hernia, the fact that the hernia was not of the common congenital form, and the orchitis consequent upon the operation, are points which appear to be worthy of note. This form of hernia is described by Mr. Birkett, but is apparently not of such common occurrence as that where the bowel descends altogether into the fully open tunica vaginalis testis.

Since the above was written the child has been seen again, and there is a tendency to protrusion of the hernia when the child strains; otherwise it is in good condition.

Nov. 1881.—The friends have neglected to keep on a truss, and the hernia is as large as ever.

CASE 3. *Acute periostitis; pyæmia.*—J. B—, aged six years and seven months, was admitted on April 22nd, 1881. Three weeks previously the boy fell down some steps and hurt his forehead and shin, but seemed to get quite well. Two days before admission he complained of pain in the left thigh, but ran about as usual. On the following morning he could not get up, had pain in the knee and could not move the leg, and was delirious during the night, with profuse sweating. On admission he was pale, dull and heavy-looking; respiration 48; temperature 106° ; pulse 156; with low muttering delirium. Ordered four grains of quinine, brandy-and-egg mixture. The left thigh was swollen to nearly double its normal size from the hip to the knee, and intensely painful. A short time after he came in, under chloroform, free incisions were made through the periosteum down to the bone. Three incisions in all were made in different parts, and much sanious sero-pus and lymph escaped. The bone was felt quite bare of periosteum. After the operation the temperature was 104° , falling later to 102.4° . There was great prostration. The temperature again rose and reached 106.6° at 11 P.M., when he died. At the post-mortem examination several recent pyæmic abscesses were found in the lungs, and the whole of the femur was bare from the neck to the lower epiphysis; no other disease.

This case is typical of the severest form of acute periostitis, but is perhaps unusual in its very acute course, the whole duration of symptoms being only two days and a half, and two days before admission he went to school. No delay occurred in treatment, and it was evident that the pyæmia had developed before he was seen. There was no evidence to show that the pyæmia existed before the periostitis. The mischief was so extensive that, in removing the bone as a specimen, it gave way with very slight force at the junction of the diaphysis and lower epiphysis.

For many of the above notes I am indebted to the resident medical officers.

THE ROYAL SOCIETY.—The following gentlemen were elected Council and officers for the ensuing year:—President: W. Spottiswoode, M.A., D.C.L., LL.D. Treasurer: J. Evans, D.C.L., LL.D. Secretaries: Professor G. G. Stokes, M.A., D.C.L., LL.D.; Professor Foster, M.A., M.D.; Professor A. W. Williamson, Ph.D. Other members of the Council: F. M. Balfour, M.A.; J. L. Bell, F.R.S.; Sir Risdon Bennett, M.D.; Professor T. G. Bonney, M.A.; Professor H. Debus, Ph.D.; A. J. Ellis, B.A.; Sir John Hawkshaw, M.I.C.E.; T. A. Hirst, Ph.D.; W. Huggins, D.C.L., LL.D.; Professor T. H. Huxley, LL.D.; Professor J. Lister, M.D., F.R.C.S.; Professor D. Oliver, F.L.S.; Professor H. E. Roscoe, B.A., LL.D.; W. W. Smyth, M.A.; H. T. Stainton, F.G.S.; E. J. Stone, M.A.