with a tonic. The salts of most of the metals are useful in this relation, and those of arsenic and zinc pre-eminently so. In low-lying districts with a damp soil, the consensus of large bodies of medical men is in favour of iron; and doubtless in this respect the particular therapeutical agent will vary with the surrounding circumstances; but the principle is the same.

Then, again, as to the imperfectly known neuroses of the extremities:

1. A tingling is met with of all the extremities, both hands and both feet; sometimes with a normal appearance of the skin, sometimes with a waxy blanching. It is a neurosis, but a neurosis depending upon a great variety of causes. The tingling is a reflex manifestation of irritation at a distance, in the stomach, uterus, intestine, etc.; perhaps sometimes from the peripheral nerves themselves, exercising a paretic effect either on portions of the cortical sensory area or on the cervical and lumbar bulbs, or on all these co-incidentally, or on the vaso-motor ganglia on the vessels themselves; or it may be due to deficient heart-power, and then is accompanied by the waxy blanching of the skin, and with more or less local loss of temperature.

2. Cases are met with in which both cerebro-spinal and sympathetic nerves are involved; and pain, heat, and vascular congestion alternate with pallor, cold, and absence of pain.

3. There is a state of semi-paralysis of the blood-vessels of the extremities, causing flushing of the feet, and generally pain and tenderness. Pain may precede the vaso-motor phenomena. The feet are more commonly affected than the hands.

4. There may be a great coldness of the feet, or of the fingers, associated with contraction of the vessels of the extremities. It is possible that this condition is closely allied to the first variety, and may depend on deficient *vis à tergo*; but it has been thought to be due to overexcitation of the vaso-motor centre.

5. A further stage of this, even if it may not be considered a separate variety, is one in which symmetrical gangrene is the direct result of contraction of vessels. In all these varieties, the vessels themselves are neither occluded nor diseased. It would be against experience to say that these neuroses occur only in patients who have inherited a neurotic tendency. They seem frequently to be set up by the circumstances of the environment. Some varieties are associated with dilatation of vessels, and in these the use of ergot and of nerver-tonics is essential; but in the forms that own a constriction of vessels, the opposite treatment would hardly be successful. Friction, gentle galvanic currents, tonics, the removal of the sources of reflex irritation, and a due regard to a sufficient *vis à tergo*, will do more than paralysing drugs, or even than the application of external heat.

In the same line of thought, much might be said on many of the neuroses; on exophthalmic goitre, which, in some of its phenomena, may be included in this category; on diabetes insipidus, often recovered from under ergot and galvanism; on vaso-motor insomnia; on heat-exhaustion and heat-fever, in the first of which depression of nerve force must be met by strengthening remedies, in the latter, the paralysis of heat-controlling centres by quinine; on the non-organic forms of angina pectoris, in which the recurrence of the attacks would be badly met by sedatives and antispasmodics.

A CASE OF HÆMORRHAGE INTO THE CRURA CEREBRI, WITH REMARKS.

By EDWIN RICKARDS, M.B.Oxon.,
Physician to the General Hospital, Birmingham.

W. C., aged 64, was brought to the hospital from a lodging-house, where he had been for a fortnight. He was a very reticent man, seldom speaking to his fellow-lodgers, and he was addicted to drink. The day before admission into the hospital, it was noticed that he was unsteady in his gait, and that his right eyelid was partially dropped; it was, however, thought that he had been drinking. He went out into the town, and came back by himself. He needed no assistance in going to bed. The following morning, his right eye was closed, and the left eyelid drooped; he was very drowsy, and, when he tried to walk, he staggered. He was admitted into the hospital that day (February 3rd). Though drowsy, when roused he was violent in his language, and pugnacious, using his right arm far more freely than the left. He only spoke when questioned, and then generally answered incoherently. He would not take food, saying there was poison in it. There was a slight but decided loss of power in the left limbs. As far as could be ascertained, the reaction to faradism was the same on both sides of the body. There was a loss of expression on the left side of the face, and the conjunctiva of the left eye did not seem quite so sensitive as that of the right. The right eye was com-

pletely closed; between the eyelids on the left side, there was just a chink. The orbicularis palpebrarum acted well on both sides. He was too irritable to be examined further.

On February 4th, the left eye also was closed. He was more rational and tractable, and took food; in other respects, the same. He gave his right name. His head was always turned to the left side of the body, though he was able to move it freely. When the eyelids were raised, the eyeballs were seen to move freely in every direction; there was no strabismus; the pupils were equal, and acted to light and to accommodation; they were not contracted nor dilated. He could count fingers correctly with both eyes, separately and together. There was very slight but decided loss of motor power in the left limbs; he only used these limbs to make a special effort. When a hand of an observer was placed on any part of his body, he would exhibit great power with his right hand to remove it, and failing, he would then use his left hand, which comparatively possessed very little power. The sensibility of the left side was diminished, but not destroyed; the prick of a pin was not felt nearly so acutely on the left as on the right side. The tongue, when protruded, did not deviate to one side. The reflexes were normal; there was no ankle-clonus. Being asked if he had pain in his head, he put his hand to the back of his head. There was no pyrexia. He passed his urine in the bed.

From February 4th to February 14th, his condition remained unchanged. He lay in a semi-conscious, unintellectual state, with his eyes closed. He passed fæces and urine under him. When roused, he took food. His bowels acted only under the influence of large and repeated doses of aperients. On February 14th, he became comatose. On February 15th, he somewhat rallied. The limbs on both sides were flexed and stiff, but not rigid. The loss of power and sensibility of the left limbs was slightly increased, though he could move them and feel the prick of a pin. On February 17th, he passed into a state of profound coma, and died.

Post Mortem Examination.—The brain weighed 52 ounces. The membranes were thickened, especially at the base. There was not any excess of cerebro-spinal fluid, and the convulsions did not appear to be flattened; the vessels of the brain were atheromatous; no thrombosis or aneurysm was discovered. On section, the brain seemed congested, and its substance somewhat softer than natural. On laying open the lateral ventricles, they were seen to be dilated, and to contain over five ounces of clear fluid. On removing the fornix and velum interpositum, at the back of the third ventricle, and in the inner and upper part of the crura cerebri, a blood-clot was found. It was not symmetrically placed, the right crus being damaged by it to a much greater extent than the left. The clot occupied the inner half of the right crus, and extended downward to the locus niger; only the inner and upper fibres of the left crus being affected. The clot, situated beneath the iter or tertio ad quartum ventriculum, compressed to occlusion that canal against the corpora quadrigemina. There was no blood in that canal, or in the fourth ventricle. The anterior surface of the clot was free in the third ventricle, being covered by the ependyma only; the posterior border was about a line in front of the anterior edge of the pons Varolii. The clot measured from before back superficially $1\frac{1}{2}$ inch, but below the surface $1\frac{3}{4}$ inch; it was $\frac{3}{4}$ inch from side to side, $\frac{5}{8}$ inch from above downwards in its deepest part, namely, in the right crus. That part in the upper strand of the left crus was about a line thick in its thickest part. The central portion of the clot was of lighter colour, and less firm than the rest. There was nothing noteworthy about the other viscera, except that the lungs were congested, especially the left.

REMARKS.—In this case it seems probable that at first (February 2nd) the hæmorrhage was confined to the right crus, causing partial ptosis on the right side and unsteady gait, either by rupture of nerve-fibres or by pressure that the hæmorrhage subsequently (February 3rd) increased in that crus, producing complete ptosis on the right side, and extended into the left crus, giving rise to ptosis on the left side; that the mental condition was due to the accumulation of fluid in the lateral ventricles of the brain, caused by the upward pressure of the clot on the iter a tertio ad quartum ventriculum, the communication between the lateral ventricles and the spinal canal being thereby cut off, or by indirect pressure on the veins of Galen. It would seem phenomenal that the impairment of sensibility of the left side of the body was not greater, seeing how large an amount of the upper part of the right crus was destroyed, and that the hæmorrhage, by compressing the inferior strata of the right crus did not cause greater paralysis of motion on the left side. Doubtless the pressure on the inferior part of the right crus was not so great as it would have been, had the clot been enclosed in the crus. Its upper surface was not covered by fibres of the crus, and evidently during life the pressure from it was upwards, and tilted up the corpora quadrigemina.

The rarity of affections of the crura cerebri makes it desirable that every case should be recorded. The diagnosis of crural hæmorrhage seems to depend mainly upon the presence of paralysis of the third nerve on the side of the lesion with partial or complete paralysis of motion, and sensation of the limbs and face on the opposite side. Such were the conditions in Dr. Weber's case, the best recorded case of the kind, given in his Remarks on hæmorrhage into the crura, in the *Medico-Chirurgical Transactions* for 1863.

The symptoms would naturally be modified by the part of the crus affected. In Weber's case, it was the crust of the left crus which was the seat of the hæmorrhage; there was paralysis of the third nerve on the left side, and the paralysis of the limbs and face on the right side was complete as to motion, partial as to sensation. In the above case, the hæmorrhage was into the tegmentum of both crura, extending on the right side down to the locus niger, the paralysis of motion, as was to be expected, was partial, amounting to double ptosis, and slight loss of power in the left limbs and face; the acuteness of sensation of the left side was somewhat diminished. The case shows that, in crural hæmorrhage, the levator palpebræ may be paralysed, while the other muscles supplied by the third nerve may be unaffected.

ACUTE RHEUMATISM WITH ENDOCARDITIS; PARTURITION: RECOVERY.

By J. EDWARD SQUIRE, M.D. LOND., M.R.C.P.,

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R. F., aged 32, married, came under my care in July, 1883, with pain in the joints. She was a dark-haired woman, and was about eight and a half months pregnant with her first child.

On my first visit she was lying propped up in bed, in evident pain, having been ill three days. Her condition was then as follows. The right wrist was red and swollen, and contained fluid. She could not move the left arm for pain, and could not bear the hand touched; the second and third metacarpophalangeal joints were red and swollen with fluid. Both knees and both ankles were swollen, and fluctuation could be made out in all. The temperature was 103° Fahr. at 4 P.M., the pulse 140. She was perspiring freely; there was no cardiac murmur. Ten grains of salicylate of soda were ordered to be taken every hour for four hours, and then every two hours; and cotton-wool was wrapped round the joints, and placed over the cardiac region.

Two days of this treatment produced a very good effect; for, though the left shoulder became affected, the patient was very much easier, and was able to sleep a little at night. The temperature fell to 100° Fahr., and the pulse was 112.

On July 20th, the fifth day of illness, some giddiness was complained of after the medicine, which was, therefore, only given every three hours that day, and the interval was increased to six hours the next day.

On July 23rd, the eighth day of illness, at noon she had no pain. The bowels were open after castor-oil. Temperature 100.2°; pulse 96, very irregular and weak. The urine contained albumen. There was slight roughness with the first cardiac sound as heard at the apex. The salicylate of soda was discontinued, and half an ounce of brandy ordered to be given four times in the twenty-four hours.

On July 24th, the patient felt better; the pulse at 1 P.M. was 90, and much steadier and stronger; the temperature was 98° Fahr. On auscultation of the heart, a presystolic murmur was heard at the apex.

On the 25th, the murmur was very well marked; the temperature was only 99° at 3 P.M., and the pulse (88) strong and regular. The urine was free from albumen.

On the 26th, labour-pains came on about 5 A.M., and continued all day. The joints were still painful, especially the knees. The murmur was loud and high pitched; temperature 99°, pulse 86, fairly good, at 11 A.M. The patient was delivered at 10.30 P.M. The labour was, I was informed, not particularly difficult, but the patient became very faint. The child, a girl, was healthy.

The following day, the 27th, the patient felt much better as far as the pain in the joints was concerned (the nurse said the rheumatism seemed to go all at once), but complained of very sharp pain over the cardiac region. Temperature 100.8° at 4 P.M.; pulse very irregular.

On July 28th, the patient was much better; a belladonna plaster had relieved the pain over the heart; temperature 101.4° (3.30 P.M.), pulse still very irregular.

On August 1st, the pulse was regular, but very quick—120. Temperature 101°, at noon. The cardiac murmur was distinct, and higher in pitch.

On August 3rd, in the evening, the left shoulder was painful, and

the patient was much emaciated. The heart-murmur was distinct, and was heard up the sternum, and between the shoulders. There was heaving pulsation felt over the heart; temperature 102°, pulse 128 (intermittent). When she lay down quickly there was considerable cardiac dyspnoea.

On August 8th, the temperature in the evening was 104° Fahr., after two rigors during the day, which was accounted for by tenderness and induration in the left breast. Examination of the heart showed the apex-murmur to be less distinct, but a loud systolic *bruit* was heard at the base, and conducted up to the aortic cartilage, and was also heard over the pulmonary cartilage.

By the 12th, the fear of suppuration in the breast had passed, and the temperature was down to 99.8°. The patient was in every respect much better. The lochia, which at first had been very scanty and offensive, were now more abundant and high-coloured; on the 13th, their quantity had diminished. On the 15th, both heart-murmurs were much less distinct, and the patient was taking solid food. She was sitting up for the first time on the 22nd. On August 31st, the murmurs were almost inaudible; temperature 98.8°, pulse 84; and the patient was described as feeling well, and having a good appetite.

By September 17th, fifty-five days (nearly eight weeks) after the first appearance of a murmur, and fifty-three days after her confinement, there were no heart-murmurs audible. The baby was healthy and well, having completely recovered from an attack of ophthalmia neonatorum.

I had another opportunity of seeing the patient in April, 1884, when I was able to satisfy myself of the undamaged state of the heart. There were no murmurs, and the sounds were loud and clear.

REMARKS.—There are several points of interest in this case, apart from its satisfactory termination. Although this was the first confinement, the delivery of the child was not attended with any great difficulty, notwithstanding that the condition of the joints was such as to cause pain on the least attempt at movement.

Any attack of acute rheumatism causes anxiety as to the ultimate effect on the heart, however satisfactory the conditions under which we are able to keep our patient; and we are accustomed to enjoin perfect rest, and avoidance of the least exertion which might throw extra work on that organ. In the above case, parturition occurred while the inflammatory condition of the endocardium was active, and there was fear lest the severe strain on the heart might increase the mischief.

Before labour came on, there was some transient albuminuria, which may be referred rather to the pregnancy than to the rheumatism. After the confinement, the rheumatic pains were lost or forgotten, but sharp pain over the cardiac region showed that the extra work had not been without effect on the injured heart.

The subsequent history of the case is one of gradual but steady improvement, broken only by a threatening of milk-abscess in one breast, which was fortunately averted. It is noticeable that the stages of convalescence after delivery were later than is usual in normal confinement. The temperature, which usually falls about the fourth to the eighth day, was persistently above 101° Fahr. for more than a fortnight after delivery, the febrile period being further prolonged, by the inflammation of the breast, from the thirteenth to the seventeenth day.

The systolic murmur, which was heard over the base of the heart, was probably of hæmic origin, and not dependent on organic changes in the valves.

The effect of salicylate of soda in this, as in every case of acute rheumatism in which I have used it, was satisfactory in reducing the temperature, and relieving the pain; and, though it may not have shortened the illness, it enabled the puerperal complication which followed to be treated under more satisfactory conditions.

ON WASH-LEATHER SKIN.

By P. H. EMERSON, B.A., M.B. Cantab., Southwold, Suffolk.

IN the BRITISH MEDICAL JOURNAL for March 8th, 1879, Dr. David Ferrier first recorded a peculiar condition of the skin, in which certain metals marked it with black lines; this condition he termed "wash-leather skin." Dr. Ferrier tried numerous experiments with a view to discovering the cause of this phenomenon, and he came to the conclusion that "it would appear that, though the property of taking on metallic markings belongs to the skin, to a greater or less extent, in the healthy state, yet in certain conditions, especially in that of œdema, which may not be otherwise evident, this property is greatly intensified, and may be of some diagnostic value." With a view of eliciting any new facts, I observed fifty cases in the wards of King's College Hospital, a table of which I append. It will be seen that, since only fifty cases are recorded, there is a liability of error, which,