

In 1 minute, pulse 96.

In 3 minutes, pulse 98, respiration 20.

In 4 minutes, pulse 100; a deep sigh, accompanied by the following interjection, "There is no doubt about the oppression of the breathing."

In 5 minutes, pulse 100, skin dry.

In 6 minutes, pulse 108, respiration 18, drawn more deeply; stated that the respiration feels oppressed.

In 7 minutes, pulse 112, a deep inspiration, feels hot.

In 8 minutes, pulse 112, respiration 16.

In 10 minutes, pulse 112, sweating on face.

In 11 minutes, respiration 10.

In 12 minutes, pulse less full, 118.

In 13 minutes, respiration feeble, with occasional deep-drawn inspirations, very oppressed; sweating profusely on face.

In 14 minutes, pulse 112, respiration difficult to count or hear, for most part, but every now and then a deep inspiration.

In 15 minutes, ditto, ditto.

In 16 minutes, pulse 112, respiration 16, laboured breathing, face congested, sweating profusely.

In 20 minutes, pulse 120, respiration about 12, but very feeble. Directly after this some cold water was let in, which excited frequent deep inspirations and a great sense of relief.

The observations above detailed are *facts*; their import has now to be considered; they are food for deductions, for comment, and for rational hypotheses.

Three chief conclusions, independent of theory, are evident from a consideration of the foregoing facts. These are—

1st. That the hot bath was to each individual for a certain length of time a *cardiac excitant*, increasing—

a. The rate of action of the heart.

b. The force of the heart.

c. The volume of the pulse.

2ndly. Whilst at the same time it was *diminishing* the amount of respiration, as was evinced by—

a. Gradual diminution of the *rate of respiration*.

b. Increasing *irregularity* of ditto.

c. Progressive debility of ditto, which having become less efficient for the most part, it necessitated every now and then—

d. Deep voluntary inspirations "to give relief."

3rdly. One other point may here be alluded to. During the first two or three minutes the cardiac pulsations were not always increased, nor the respirations rendered slower; but a reverse effect was even produced—viz., that in some cases, depending more or less on the heat of the bath, the cardiac action was depressed, the respiratory action was increased, during the first two or three minutes—that is, whilst the first impressions from the warmth of the water lasted, and acted upon the system *by a kind of shock*.

But these pulmo-cardiac phenomena are only two of the various effects manifested upon the system by the hot bath; for there are also the effects upon the voluntary muscles and the brain, which must not be overlooked. These require notice before the nature of the inverse pulmo-cardiac result above observed is more particularly examined into.

(To be continued.)

ON A CASE OF EPILEPTIC PUERPERAL CONVULSIONS.

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THE following case is interesting from the fact of chloroform having exerted a marked influence in arresting the fits both during and after labour. I am unaware whether it has been administered for this purpose. The patient is now convalescent:—

Early on the morning of the 5th of February last, I was summoned to attend H. J—, aged eighteen, primipara in the eighth month of pregnancy. On my arrival, I was told that she had had several fits, the first one having occurred during her sleep, at about midnight. They had recurred about every hour, and, from their commencement, sensibility had not been established in the intervals.

I found my patient, a thick-set, short- and wide-necked girl,

of a phlegmatic temperament. She was lying quiet in bed, breathing with a slight degree of stertor; appearance placid; pupils dilated, and only feebly contractile under the influence of light; insensibility seemed almost total, and the power of deglutition was lost. Pulse 80, feeble. After I had been in the room about five minutes, she began to be restless, moving her arms and legs about; in a few minutes more a fit supervened. The head was drawn on one side, the tongue protruded, the teeth closed, foam issued from the mouth, the eyes rotated strongly upwards, and all the limbs moved with great violence and rapidity. This continued for the space of four or five minutes, and was succeeded by the angle of the mouth being drawn down on one side (the tongue still protruded), and the right arm frequently jerked. Respiration stertorous and very laboured, the *alæ nasi* being closed at each inspiration. In about eight minutes from the commencement of the fit the movement of the arm ceased, and the respiration became less laboured, but accompanied by a great amount of stertor. On making a vaginal examination, the os uteri was found undilated, but somewhat dilatable; the presentation natural. There did not seem much appearance of labour coming on. Notwithstanding that the hair was cut off closely, and cold water applied to the head, and cataplasms to the legs, a purgative enema administered, &c., the fits recurred with greater frequency, and became more violent, the stertor being still greater in the intervals, and the insensibility total.

On consultation with my friend Mr. Whyte, it was determined to try the effect of venesection. On account of the feebleness of the pulse only about ten ounces were drawn, the quickness and feebleness being somewhat increased. A blister was applied to the nape of the neck, but no diminution occurred in the symptoms—in fact they were aggravated.

At six o'clock another consultation was held, the condition of the patient being apparently desperate. The fits were occurring every quarter of an hour, and were extremely violent. The respiration in the intervals was effected with the greatest difficulty; indeed, in the state she then was it seemed both to Mr. Whyte and myself impossible for her to exist more than two or three hours. As labour had somewhat advanced, the os uteri being nearly the size of a half-crown and very dilatable, it was determined to deliver artificially; but on account of the violence and frequency of the fits we also determined to use chloroform cautiously ere doing anything. I placed half a drachm in the inhaler and held it to the face; the air was drawn in with so much violence that in half a minute considerable effect was produced, the pulse being scarcely perceptible, and catching of the breath occurring, which caused us some alarm. We were neither of us prepared for the most favourable effect which afterwards, however, ensued, as in ten minutes from the application of the chloroform the stertor was much diminished, the pupils became somewhat under the influence of light, and our patient was lying as placid as when I saw her in the morning; she had not breathed so easily, indeed, since the commencement of the fits. In addition to these good effects, labour advanced with regularity, and by applying the forceps it was completed in the space of about half an hour, only one fit occurring during the time, for which the chloroform was again applied with good effect. Hour-glass contraction occurred, which rendered it necessary to introduce the hand to remove the placenta.

Having remained an hour afterwards with my patient, and no fit occurring, I left, desiring to be sent for in the event of an unfavourable change. Shortly after my leaving a severe fit again came on, and in an hour's time another. When I reached her (about three hours after delivery) I found the stertorous breathing as bad as ever. Another severe fit shortly supervening, I again administered chloroform, after which the breathing was tranquillized and no fit occurred for some time. Once afterwards chloroform was again given with apparently equally good effect, and after this only one slight fit occurred.

Feb. 6th.—Eight A.M.: Has had no fit since three A.M.; at that time there was a slight one. Is lying quite still, breathing stertorously. Pupils widely dilated, uninfluenced by light; pulse feeble. Any liquid placed in the mouth is not swallowed. Half a pint of beef-tea with two ounces of brandy was injected into the rectum and retained.—Two P.M.: In much the same condition as this morning, but the pupils have a tendency to act. Repeat enema.—Six P.M.: The stertor is diminished, and the pupils act sluggishly. She is still insensible to irritation by pinching, &c.—Eleven P.M.: The pupils act better. Repeat enema.

7th.—This morning there is evident tendency to sensibility. She does not breathe stertorously; opens her eyes and gazes about the apartment, &c. At about midday, a question ad-

dressed by me to her met with a faint response. Deglutition was at first performed with very great difficulty, but after a few hours she managed to take beef-tea with brandy, and other nourishment, with evident advantage. She did not sleep during the next night; and as on the following day delirium was present, a full opiate was given, which caused several hours' sleep, on awaking from which all delirium ceased.

14th.—Has gone on well till to-day. Complains that she feels as if the fits were coming on; is much depressed. A mixture of chloric ether, compound spirit of ammonia, and valerian removed these symptoms.

28th.—Is convalescing satisfactorily.

East Grinstead, April, 1861.

A Mirror

OF THE PRACTICE OF MEDICINE AND SURGERY IN THE HOSPITALS OF LONDON.

Nulla est alia pro certo noscendi via, nisi quam plurimas et morborum et dissectionum historias, tam aliorum proprias, collectas habere et inter se comparare.—MORGAGNI. *De Sed. et Caus. Morb.*, lib. 14. Proœmium.

KING'S COLLEGE HOSPITAL.

OPERATIONS UPON THE MOUTH AND THROAT IN FOUR CASES.

(Under the care of Mr. FERGUSON.)

THE student had an opportunity, on the 20th ult., of seeing several operations performed at this hospital on the mouth and throat, for the remedy of some of the peculiarities of these parts which he is likely to encounter in practice.

A little child was treated for hare-lip in the ordinary manner, by paring the edges of the fissure and bringing them together by pins.

A girl, aged nine or ten years, underwent excision of the tonsil for hypertrophy of that gland. Mr. Fergusson put in practice the method he ordinarily adopts,—that of laying hold of it with a pair of long forceps (or sometimes with a vulsellum), and cutting it off with a curved probe-pointed bistoury, making the requisite incision between the claws of the forceps and the pharynx. There was a little bleeding, which very soon ceased, by contact with the air and a little cold water. Although the tonsillotome is preferred by some surgeons, on account of the greater rapidity with which the enlarged tonsil can be removed by it, we have seen cases in which a considerable time has elapsed before the instrument could be properly applied; and even then, after application, its withdrawal has failed to bring away the tonsil with it. Nothing can be more simple and expeditious than the mode of excision practised by Mr. Fergusson, which never requires a second operation.

A young man then entered the theatre with a fissure extending through the soft palate and a small portion of the hard palate. Staphyloraphy was performed with complete success. There was at first a little more sensitiveness of the parts than is usually witnessed in these deformities, but it soon passed away, and the operation was readily completed. We recollect the case of a girl upon whom staphyloraphy was performed by Mr. Fergusson, on the 1st December last, for cleft palate. She had previously been operated upon for hare-lip. On the occasion now referred to, however, she evinced astonishing moral and physical courage, for during the entire time she scarcely stirred; and the operation was finished in the most satisfactory manner, and a cure resulted. This was the ninetyeth case of staphyloraphy performed by Mr. Fergusson, and out of that large number three only proved unsuccessful, as we heard him state in January; and that was not the fault of the operation itself.

The fourth case was a boy aged ten years, in whom there was loss of substance of the left side of the lower lip near the angle, with adhesion of the lip to the gums, and exposure of the gums

and teeth, the result of a former attack of cancrum oris. The deformity was not only unsightly, but gave rise to more or less constant slobbering. It was remedied by a sort of plastic operation, which consisted in the paring of the edges of the cicatrized part, loosening the adhesions between the chin and gums, and making an incision through the left part of the chin to relieve any traction, as well as to permit of the elevation of the left lower lip. The semicircular wound thus made was closed with hare-lip pins. If nothing occur to prevent union of the parts, the deformity will be much lessened, and the inconvenience of slobbering wholly obviated. This operation was done under the influence of chloroform.

Mr. Fergusson next proceeded to remove a very large tumour from the left loin of an elderly man, which had all the physical characters of a fatty growth; but on careful examination it was found to be an example of colloidal disease, no doubt originating in a fatty tumour, as a part of the latter was quite apparent in one part of it. The particulars of this interesting case we shall give on another occasion.

ST. GEORGE'S HOSPITAL.

FRACTURE OF THE RIBS, PELVIS, AND SKULL; LACERATION OF THE BRAIN; FATAL RESULT.

(Under the care of Mr. CUTLER.)

JOHN C—, aged fifty-one, was admitted on March 21st, 1861, at ten A.M., with fracture of the skull and other injuries, from which he died at four P.M. Before admission he fell from a scaffold twenty feet high, and at once became insensible; he had stertorous breathing, with the characteristic whiffing.

At the autopsy, twenty-one hours after death, the body was found to be in good condition. There was no scalp wound. A considerable quantity of blood was contained in the scalp covering the seat of fracture of the right side of the skull, just at the outer part of the middle and posterior fossæ. Starting from behind, the fracture commenced by a branch running into the foramen magnum. In front of this were two large oval, loose portions of the occipital bone, of which the lower angle of the posterior was somewhat elevated, while the anterior (which trenched on the parietal) was slightly depressed. In front of this the parietal and squamous portions of the temporal were much comminuted, the fracture taking a generally horizontal direction towards the sphenoidal fissure, but appearing to terminate short of that point. The tympanum contained a little blood, but the membrana tympani and the chain of bones were uninjured. There was no blood between the bone and dura mater. The dura mater was lacerated in two places—viz., by a small thorn-like projection from the fractured occipital bone, which had produced a slight puncture, and by the comminuted pieces of the parietal and temporal, where there was a horizontal rent two inches long, and corresponding to a similar laceration, to no great depth, of the middle lobe of the brain below. There was a good deal of fluid blood in the arachnoid on the left side, clotted blood in the pia mater over various parts of the brain, and some bloody fluid in the lateral ventricles, but no other distinct lesion besides that already noticed in the brain. The heart was very flaccid; the mitral valve atheromatous. The blood was generally fluid. There were a few old adhesions and a small quantity of blood in the left pleura. The right pleura was firmly adherent. There was a patch of extravasation at the back of the left lung, otherwise the lungs were uninjured. On the left side the two upper ribs were fractured near their cartilages and angles. On the right side the third to the eleventh inclusive were fractured near their cartilages, and the fourth to the ninth inclusive near their angles. On the first rib, near its junction with the sternum, an irregular deposit of bone was found on both upper and under surfaces, and on making a section there was a mark as of an old fracture. There was some blood in the peritoneal cavity, and very extensive ecchymosis in the sub-peritoneal tissue both in front and behind. All the organs of the abdomen were healthy and uninjured, but there was slight ecchymosis in the substance of both kidneys. The blood had proceeded from a fracture of the ala of the right ilium, which divided it into three pieces. Bladder sound.

FRACTURE OF THE RIBS; BRONCHITIS; DISEASED KIDNEYS AND HYPERTROPHY OF THE HEART; FATAL RESULT.

(Under the care of Mr. CUTLER.)

William B—, aged sixty-two, was admitted on the 26th of February, 1861, with fractured ribs and other injuries of the