hour and a half, when she was suddenly seized with a very severe convulsion, which lasted about two minutes. I immediately sent for my forceps; but, before they arrived, the head was born, the pain which expelled it being accompanied by another convulsion. The placenta came away about five minutes after the birth of the child, which was strong and healthy; immediately afterwards she had a dreadfully severe convulsion, which lasted much longer than either of the others. The bandage was applied tightly, and I waited to see if she had another. The fourth occurred in about twenty minutes, as she was lying quite quietly. She then had a drachm of laudanum in an enema at 5 A.M. A very slight convulsion occurred in about half an hour, after which she slept soundly till 10 A.M.; when she awoke quite conscious. She complained of pain in the head, and indistinctness of vision, but, in other respects, was very comfortable. A mustard poultice was applied to the neck, which relieved the head considerably; she was soon convalescent. Her sister, who was with her, told me she herself had convulsions with her first child, for which she was largely bled; in her case they continued for twenty-four hours after delivery.

Mr. Kempe has kindly furnished me with the particulars of the two following cases.

CASE IV. E. S., unmarried, aged 22, was attended by a midwife. She had been in labour twenty-four hours, and the head had been resting on the perineum some hours, during which time the pains had been very severe, when a convulsion occurred, for which Mr. Kempe was called. Delivery was attempted with the short forceps, but without success; the head was so firmly impacted in the pelvis, that it could not be moved; the head was then lessened, and delivery soon completed. She had three or four severe convulsions during the operation. A drachm of laudanum was administered in an enema, immediately after the placenta had been removed. She then slept for several hours, and awoke quite comfortable and sensible. Her recovery was perfect.

CASE V. Mrs. C., wife of a respectable tradesman, short, stout, and of a very florid appearance, expecting her confinement daily, went to bed quite well at 10 P.M. At 12 o'clock her husband was alarmed by finding that she was in a very severe convulsion, during which she fell out of bed. Mr. Kempe was immediately sent for. He found her head and face very turgid and dusky, eyes much suffused, the convulsions coming on very rapidly after each other, and very severe indeed: the os uteri was dilated to about the size of a shilling. Leeches were applied to the temples, and two drachms of laudanum were given in an enema, after which she became much quieter. At 4 A.M., she had had no fit since the administration of the enema, so Mr. Kempe left her. At 10 A.M., he found his patient sitting up in bed, washing her face; there had been no return of the convulsions; she remained very comfortable during the day, and in the evening the baby was born, strong and well. There was no recurrence of convulsions after the administration of the opium; and the recovery of the patient was complete.

30, Magdalen Street, Exeter, May 4th, 1854.

ON PUERPERAL CONVULSIONS.

By CONWAY EDWARDS, Esq.

THE following is an account of a case of puerperal convulsions, which occurred in my practice a few months since.

The cause may probably be found to have existed in the overloaded state of the stomach; which, if admitted, demonstrates the truth of Dr. Oke's position, that the irritability of a distant organ may be a primary cause of puerperal convulsion.

CASE. My patient was the wife of a farmer, aged 30, of good constitution and excitable temperament, and in the last month of pregnancy. I found her lying on the kitchen floor, in a half dreamy state. I was told that the bowels had been sharply purged, and a large quantity of black fluid ejected from the stomach. She was supposed to have had cramp in that organ, as, prior to the vomiting, she screamed out with the sudden and violent pain which seized her: she was believed to have fainted, as immediately after the vomiting she fell to the ground, and became insensible.

As I was noticing to myself how heavy, and full, and sluggish the pulse seemed, with a beat of 68, the eyes suddenly opened, the heart was roused into great action, a hissing sound ensued, the face was thrown into frightful contortions, the tongue was forced from the mouth, and a universal spasm of the usual character demonstrated at once the nature of the case. The handle of a fork was inserted with great difficulty between the teeth, and the tongue liberated; but not in sufficient time to prevent a severe wound from being inflicted on it.

Twenty ounces of blood were abstracted, and she was carried to bed. Examination satisfactorily proved that uterine action had not taken place; nor was further convulsion produced by such examination. Six grains of scammony and four grains of calomel were given, and retained. The hair was cut off, a mustard plaister was applied to the neck, and another to the *scrobiculis cordis*. Nearly an hour elapsed without a return of the attack; she had sufficiently recovered to state that she had drunk largely of elder-wine for supper, and was then suffering from a burning pain, both in her head and stomach. As she was narrating these circumstances, her eyes became fixed, and the convulsions reappeared with their former violence. I repeated the bleeding, and remained with her until 6 A.M.; I then left, giving the nurse directions to prevent the tongue being further injured, should the convulsions recur.

9 A.M. Two more convulsions had occurred since my absence. The bowels had not been acted on by the medicine. I gave two drops of croton oil, and applied a blister to the neck. I now remarked, that soon after the cessation of each convulsion, the pulse sank to 68 or 70. The breathing was particularly slow and equal, although the sensorium was greatly oppressed; and addressing her by name in a very loud voice caused her only to lift the eyelids for a moment.

It was now so evident that plethora was but a very small link in the chain of cause and effect, that I determined to abandon altogether my line of treatment, and appeal to the nervous system, should the convulsions be renewed. These soon recurred; the head was held over the edge of the bed during a tremendous paroxysm, and a large quantity of cold water was dashed over it. The convulsions ceased; the water appeared to arrest them in an instant. A drachm of tincture of opium and ten minims of chloroform were then given. She seemed to have sunk into a quiet sleep; the pulse was 70, and the pupils were dilated and motionless.

From this torpor she did not recover until 7 P.M. In the interim, the bowels had been relieved of a large quantity of black fluid.

8 P.M. I found her sensible, and complaining of heavy pain in the back of the head. Examination gave no indication of uterine action. The urine was small in quantity, and high coloured; what the renal secretion *might have been* if cathartics had not been exhibited, would be perhaps difficult to say; but it might be conjectured from the condition of the pulse and oppressed sensorium, that the secretion would have been very small. The following draught was prescribed:—

℞ Tincturæ opii ʒ ss,
Chloroform. ♏x,
Potassa carbonatis ℈i,
Misturæ camphoræ ʒiss. M.

10 A.M. She had slept through the night. The pain in the back was severe—that in the head much relieved.

℞ Tinctura opii ʒ i,
Chloroform. ʒ ss,
Potassæ carbon. ℈ii,
Misturæ camphoræ ʒvi. M.

Two tablespoonfuls to be taken every four hours.

Beef-tea was given at 1 o'clock. 8 P.M. She was better. The medicines were continued. The following day she was

free from pain. She had slept well; the renal secretion was natural; the bowels had not been relieved. Boiled mutton and bread, with weak sherry and water, were taken for dinner. A calomel pill was ordered to be taken at night, and a cathartic draught in the morning.

From this period, to that of accouchement, which occurred at the lapse of three weeks, the health and strength were rapidly regained. The tongue remained sore for some time, and occasioned much inconvenience.

When labour began, I found the fœtus dead. There was a breech presentation; but no difficulty was experienced in the case; and the patient resumed her duties within a month.

Remarks. What might have been the termination of this case, had I held the opinions of some practitioners, who deem puerperal convulsions to arise more from reflected nervous influence, than a plethoric condition of the system? As a practitioner (generally speaking) far away from a supporting opinion, or any assistance, I confess, even with a belief in the first theory, I should not feel justified in withholding the lancet, even were the patient feeble in constitution, or weakened by previous illness. The total loss of sense, the condition of the retina, the tumultuous beating of the heart, the universal spasm, certainly place the blood-vessels of the brain in more or less jeopardy, and appear to demand a judicious abstraction of blood, which at once brings us to the teaching of by-gone days, when bleeding was regarded as the sheet-anchor of the practitioner.

With some experience in these matters, and comparing the speedy recovery of this case with the protracted convalescence of others, in which the antiphlogistic system and low diet were carried to excess—regarding, also, these diseases as resulting from causes partly plethoric and partly nervous—it may not be unreasonable to believe that a treatment which has reference to both these conditions would offer the greatest amount of security to the patient, and satisfaction to the medical practitioner.

Batheaston, May 8th, 1854.

REPORTS OF SOCIETIES.

MEDICO-CHIRURGICAL SOCIETY OF EDINBURGH.

SESSION XXXIII. EIGHTH MEETING.

WEDNESDAY, MAY 3RD, 1854.

JOHN TAYLOR, M.D., Vice-President, in the Chair.

[PATHOLOGICAL MEETING.]

CARDIAC MURMURS WITHOUT VALVULAR DEFORMITY.

BY W. T. GAIRDNER, M.D.

Dr. Gairdner made a few remarks upon the structure and mechanism of the auriculo-ventricular valves of the heart, with a view to the illustration and completion of the paper which he had brought forward at the last meeting of the Society. He had in that paper announced the grounds of his belief, that in the "passive aneurism" of Corvisart, and generally in cases of considerable dilatation of the cavities, without commensurate hypertrophy of the organ, such regurgitation, with or without a murmur, does actually take place; and this conclusion, derived in the first instance from clinical observation, was fully borne out by the experiments and observations which he had since made upon the normal mechanism of these valves, a subject which was still, in his (Dr. Gairdner's) opinion, very imperfectly treated even by the most recent authors. He was unwilling to detain the society by entering at large into the subject, and would merely state, as the ultimate results of his inquiries, the following conclusions. 1. It is impossible in the dead heart to imitate precisely the physiological conditions of the closure of these valves, so as to prevent reflux. The nearest approach to these conditions is when water is injected, with very considerable force, into a ventricle in a state of tonic contraction. The slightest amount of relaxation in the muscular fibre of the dead ventricle determines regurgitation. 2. On the right side (as was observed by Hunter and Wilkinson King) regurgitation is more certainly and more freely produced in experiments on the dead heart than on the left. The chief reasons of this difference, however, is the usual absence of rigid tonic contraction after death in the right ventricle, and the greater readiness with which its thin walls yield to distension. No argument can be drawn from this difference, as to the existence of a "safety-valve function" in the living and healthy heart. 3. The impossibility of securing in the dead heart the physiological conditions of closure in the living, together with other considerations derived from the structure of the valves, prove that a certain amount of tension must be exercised upon the tendinous cords, through the muscular structures of the ventricle, before the counter-pressure of the blood upon the valves can be exerted so as to close them against regurgitation. 4. Too great tension is fatal to the closure of the valves, as well as too little; and there is reason to think that the columnæ carneæ are so disposed as to maintain, by a very beautiful and delicate adaptation, a nearly uniform state of tension of the valves throughout the contraction of the ventricle. 5. Not only must a graduated tension be exercised upon the tendinous cords, but the columnæ carneæ must be approximated at their bases, so that the whole of the tendinous cords act, as it were, from one point in the centre of the ventricle, towards which all the edges of the valvular fringe are drawn. Thus the cylindrical curtain, which hangs upon the auriculo-ventricular opening during the diastole of the heart, is converted (as Bouillaud has correctly pointed out) into a cone, with the apex downwards; and the counter-pressure of the blood upon the under surface of this conical curtain brings its edges into apposition, and completely closes the valve against regurgitation. 6. To sum up the physiological conditions of closure of the auriculo-ventricular valves: it is indispensable, *a*. That they shall be acted on by the columnæ carneæ, and kept thereby in a certain state of tension; *b*. That the counter-pressure of the blood shall then come into play, and float the valves upwards towards the openings which they are destined to cover; *c*. That the forces *a* and *b* shall be simultaneously exerted on the valves when in a favourable position for complete closure: *i.e.* with the columnæ carneæ and chordæ tendineæ massed together, and the free edge of the valve puckered or pursed towards the axis of the opening. 7. All these conditions may be shewn to concur in the systole of the healthy heart. 8. The condition *a* is vitiated to a greater or less extent by disease or degeneration of the columnæ carneæ or chordæ tendineæ; also by great hypertrophy or dilatation, and more particularly by hypertrophy with predominating dilatation of the ventricles. In certain cases of simple hypertrophy, however, with inconsiderable dilatation, the increase in size affects all the structures *pari passu*: and in these it may happen that the valve preserves its normal relations by the elongation of the tendinous cords and muscular columns. 9. The condition *c* is vitiated wherever dilatation predominates largely over hypertrophy; for then the contractions of the ventricles are inadequate to bring the columnæ carneæ together at any period of the systole; they remain therefore permanently apart, and the tendinous cords instead of drawing the edges of the valves *towards* the axis of the opening, may actually cause them to diverge from it. It is unnecessary to do more than point out that sacculated aneurisms of the ventricle, globular polypi between the columnæ carneæ, and other morbid conditions, may produce a like result.

Some conversation ensued, in which Dr. Gairdner, sen., and Dr. Taylor took part.

CANCER OF THE PERICARDIUM. BY D. R. HALDANE, M.D.

The internal surface of the parietal layer was chiefly affected. Small cancerous masses were found on the left ventricle, and a larger one at the roots of the vessels. The posterior part of the lung was also affected, but the cancer of the pericardium was distinctly isolated, and no connexion could be traced between it and the disease in the lung. Several other organs contained cancerous deposits, especially the bronchial glands and the liver.

SUFFOCATION FROM A PIECE OF MEAT. BY D. R. HALDANE, M.D.

In this case the death had been sudden. The friends reported that there had been no symptoms of choking, and that the patient had expectorated a little blood. A large piece of meat, with a mass of gristle in the centre, was found in the pharynx. It was ascertained that the man had been in liquor at the time, and had been observed pushing his finger down his throat; by which the slight hæmorrhage might be accounted for.

Professor Miller urged the importance of careful examination of the throat with the finger in all cases of sudden death, and adduced some cases in illustration; particularly one which had occurred to the late Mr. Liston, of a poor woman, who, in a