

that related by Professor Syme,* but he removed first the head of the humerus, and some time afterwards the scapula and clavicle. In the case here related the reverse of this order had to be adopted, and the operation was complicated by the ankylosis of the shoulder-joint. Both cases were successful, and retained very useful arms. I think, therefore, there can be no doubt, as Mr. Syme says, "that excision of the scapula will be recognised as a legitimate and established procedure of surgery," and that implication of the adjacent bones, unless to a great extent, need offer no bar to its performance.

Stockport, Aug. 5th, 1865.

CHOLERA: ITS NATURE AND TREATMENT.

By JOHN GASON, F.R.C.P. Ireland.

CHOLERA, in its physiological and anatomical character, has given rise to theories as unsatisfactory as they are numerous. And still, before attempting a cure for this disease, some idea of its nature must be formed. Amongst the many that have been propounded, one more can only cause the cup, already full, to overflow.

Ten years since full opportunity was afforded me of witnessing this disease never surpassed in intensity in the number of persons attacked in proportion to the population, nor more severe in its results. I am now alluding to the cholera which raged in Tuscany in 1855. To various friends in England and elsewhere I have detailed my views, as well as the treatment which I adopted. By some it has been received with doubt, and has been probably forgotten; by others I have been promised a fair trial of my plan of treatment on the first opportunity. But as the occasion may not occur where the epidemic is not a general one, I do not hesitate to make it known through the columns of THE LANCET.

Cholera I believe to be, in the first instance, the result of a depressing effect on the system of nerves, particularly on that of the great sympathetic, thereby interfering with the normal action of secretion. I am fully aware of objections which may be raised to this idea, but at all events it is as good as any other that has appeared. I shall not take up time by enumerating symptoms which are so well known, nor will I describe post-mortem appearances, which are so unsatisfactory, but will proceed at once to state the treatment which I adopted, and found successful during that epidemic. I shall add to this paper an account of some cases in which I employed it.

One advantage connected with my plan of treatment is, that it does not interfere with any internal treatment that may be preferred; it causes but little inconvenience to the patient, and is a great relief, not only to the sufferer, but to those employed in attendance.

The effect of the depressing influence to which I have alluded produces a loss of the balance of power between the vessels of absorption and secretion, allowing the exhalants, as it were, to pour forth uninterruptedly those fluids which enable the blood to circulate freely through its vessels. The consequence of this loss of the watery portion is a retardation of the blood in its vessels; its oxidation diminishes, and the dark appearance of the skin gradually takes place. The cause of death is, I believe, the accumulation of the venous blood, which poisons the system, and produces death by asphyxia.

My treatment is a very simple one. As soon as the alvine "rice-water" evacuations commence, or as soon after as possible, I place longitudinally beneath the buttocks a towel very tightly rolled up, on which a solution of chloride of lime has been sprinkled. This roller should be in length about nine or ten inches, and in diameter one and a half or two inches. It must be placed so as to allow the orifice of the rectum to come directly on the middle. The patient must be confined to the horizontal posture, and no motion so as to affect the position of the roller be permitted. Together with this a broad flannel bandage should be carried tightly round the body three or four times; the part next the skin, and particularly that portion over the abdomen, should be well sprinkled with chloroform. All liquids must be withheld for the first few hours, notwithstanding the intense thirst of the patient. Gentle and continued friction should be kept up on the extremities, together with a moderate application of heat. Chloroform, in doses of three drops, to be given on a small lump of sugar every five or ten minutes, according to the urgency of the case.

* Excision of the Scapula, p. 22.

Occasionally a slice of fresh lemon may be put into the mouth, and the juice swallowed. If the acute symptoms abate, light broths may be given in teaspoonful doses every half-hour.

The roller beneath the buttocks should not be removed for at least twelve hours after reaction has set in, and then replaced immediately by a fresh one. The patient will frequently express an urgent desire to go to stool, but all entreaties to do so should be forbidden. If the roller is properly made and placed, no evacuation can possibly take place, not even as much as will stain the towel beneath him. In some cases, attended with great restlessness, it may be necessary to plug the anus, in addition to the use of the roller.

Under the above mode of treatment the secondary stage will soon be ushered in, which of course will be treated according to circumstances. I may here state that in none of the cases which I treated in this manner was the secondary fever of any great moment, except in one, in which the disease had existed for several hours before I was sent for, and the patient was living in a very polluted atmosphere. This case recovered. The severity of the secondary fever will depend for the most part on the amount of the loss of the alvine evacuations, on the system not being stimulated more than is absolutely necessary, and on the abstinence from opium.

It is hardly necessary, from what I have said, to add that I believe death in cholera ensues as the consequence of the loss of the serum of the blood, and that in this plan of treatment there is a powerful means of checking it in great part. In twenty-four hours after reaction, the whole of the serous secretion retained in the rectum will be reabsorbed. The flannel binder which encircles the body will be found to exert a wholesome pressure, and the chloroform with which it has been sprinkled will allay the spasms, which are sometimes so excruciating. Care must be taken that the feculent evacuations have ceased before the discharges are checked, unless choleraic symptoms appear urgent. There is no use in placing the roller beneath the buttocks when the system is almost drained of its serum. It should be employed during the "rice-water evacuations," and at as early a period as possible.

In this paper I shall only allude to the necessity for cleanliness both in person and in place; frequent change of bed-linen, or at least its daily exposure to the air; instantaneous removal of all secretions, and the frequent cleansing of water-closets and sewers. Being fully persuaded from personal observation, of the non-contagious and non-infectious nature of cholera, I enforce, with all my power, the removal of those causes which tend to poison the system, and expose it to choleraic influences.

CASE 1.—I was sent for to see an Italian, aged twenty-eight years, mother of four children. She had been taken ill about four hours previously. She was lying in bed quite listless. Had frequent vomiting, and watery alvine evacuations every fifteen or twenty minutes; her eyes were sunken in the sockets; she had severe spasms in the bowels, and cramps in the extremities; pulse very quick and small; skin of a darkish colour. I placed a tightly rolled-up towel lengthways beneath the rectum, and ordered an astringent mixture. All drink was forbidden. I returned in an hour; she was rather stronger. No further discharge from the bowels on account of the towel, which she steadily lies on. Vomiting less frequent. She recovered rapidly. This was the first case in which I used the roller.

CASE 2.—Mrs. M—, an Englishwoman, living in a filthy house, sent for me when the cholera was at its height. She was not in bed when I saw her, but had frequent vomiting and purging of the same nature as in the preceding case. Her skin was quite of a dark colour. She was indifferent to everything. On having her removed to bed, I placed the roller immediately beneath her, and ordered her three drops of chloroform every five minutes. I swathed the bowels tightly, and left her. On my return in three hours, I found the pulse stronger, and the vomiting much less frequent. The alvine evacuations were completely obstructed, but she had a strong desire to go to stool, which I peremptorily forbade. Her recovery was very tedious, caused, I believe, by the polluted atmosphere in which she was living.

CASE 3.—Mr. M—, aged sixty-eight years, a hale Englishman, sent for me at the time that I was in attendance on the former case. He had had for some days considerable uneasiness and relaxation of the bowels, which he could not check by any treatment. When I saw him he had frequent vomiting and purging of the same nature as in last case, with spasm in the bowels and cramp in the legs. I employed the same treatment as in the former case. Next morning he was much better. Recovery rapid. The situation of this gentleman's house was a healthy one.

Observation.—I must finally remark that some of the most rapidly fatal cases in this epidemic were unattended by spasms or cramps, and but little vomiting or purging. The patients were struck down at once. Of course the plan of treatment that I have proposed can be of little or no avail in such cases.

Via della Mercede, Rome, Dec. 1865.

PREGNANCY IN A DWARF; TURNING AND CRANIOTOMY; RECOVERY.

By L. OWEN FOX, M.D., F.R.C.S.

ON October 6th I was called to visit a young woman, who was represented to be very ill, but the nature of the case was unknown to the messenger. The patient resided six miles from my residence, at West Dean, Wilts. On my arrival, my attention was directed to a very diminutive girl in bed, evidently suffering from great pain, coming on at intervals. The history of the case furnished me, and the symptoms, admitted no doubt of the girl being in labour. A sudden discharge of fluid from the vagina had occurred twelve hours before my arrival, followed by continual pains. The attendants had suspected the nature of the case, but it was most strongly denied by the girl. She was a good example of rickety deformity; age, seventeen; height, 3 ft. 7 in. Head large, 22 in. in circumference, with broad and high forehead, flat nose, and thick lips. Long bones all bent, with their extremities thickened. Length of arm, 5½ in.; forearm, 5 in. Length of lower limbs, from anterior superior spine of ilium to external malleolus, 1 ft. 5 in. Width, from one anterior superior spinous process of ilium to the other, only 8 in. From symphysis pubis to anterior inferior iliac spinous process, 3½ in. Round pelvis, including buttocks, 28½ in. These measurements were taken when she was convalescent. There was no lateral curvature of the spine, but the lower dorsal and upper lumbar portions projected backwards considerably.

On examination per vaginam the os uteri was found fully dilated, and the presenting part the left ilium, above the brim of the pelvis. This cavity was very small, and the promontory of the sacrum jutted out, contracting the brim, so that the antero-posterior diameter *did not exceed two inches*. As the girl had been some hours in labour, and the os uteri was fully dilated, I felt that no time should be lost in effecting delivery either by the Cæsarean operation or by craniotomy. Those who are acquainted with country practice will be able to understand the inconvenience of being without instruments, or any assistance nearer than six or seven miles. A railway being hard by, and a train just starting for Salisbury, I availed myself of it, and was fortunate in obtaining the valuable assistance of Mr. Wilkes, one of the surgeons to the infirmary. My son (last year's University Midwifery Scholar) was able to be present at our consultation, and we determined to try to bring down the feet. The patient having been placed fully under the influence of chloroform, after no little difficulty, and by the exercise of patience, a foot was brought down. After an hour's perseverance, the other foot, body, and arms were brought through the pelvis. Our *serious* difficulties now presented themselves: the occiput was resting on the pubes, and it was quite evident that the head could not pass the brim unless emptied of its contents by the perforator. To apply this instrument was no easy task, the small pelvis occupied by the neck scarcely allowing the passage of the finger. A very small portion of the right side of the occiput could be felt close to the cervical vertebræ, and to this point the perforator was carefully directed. The bone having been pierced, and the brain evacuated, traction was used, but to no purpose. By the aid of a pair of small craniotomy forceps, a portion of the occipital bone was brought away, and this allowed freer use of the crochet, &c. Having obtained a firm hold at the base of the skull, powerful traction was made, and the head at length passed the brim. After waiting some time the placenta was extracted, the uterus firmly contracting. Two sutures were applied to a rupture of the perineum. The patient made a good recovery. The bladder lost its power for two days. The perineum had quite healed on the sixth day. On the ninth day she had two rigors, which have been the only bad symptoms; there has been no recurrence of them, and she now gets up daily.

Broughton, Winchester, Dec. 1865.

ON THE ETIOLOGY OF TYPHOID FEVER.

By W. B. KESTEVEN, Esq., F.R.C.S.

IN THE LANCET of Jan. 28th, among other "Interrogatories on Enteric Fever," were the following: namely—

"4. On the appearance of enteric fever in an isolated house, village, or other locality, independently of importation of the poison, stating particularly the degree of isolation, the reasons for excluding the possibility of importation, and the apparent cause of the fever.

"5. On the occurrence of a single case of enteric fever in a family, without any subsequent spread."

In reply thereto, I have thought that the following instances might be worth publishing, as there was conclusive evidence of their local origin, and as they did not spread their source.

Four cases of typhoid fever (with distinct rose-coloured spots and enteric symptoms) have occurred this autumn in a large, well-built house in Hornsey-lane, Highgate. Of these four cases, two terminated fatally.

It became a question how the disease could have originated in a house in an elevated and open situation, having, apparently, all the conditions favourable to good health.

There was at the time, and had been previously occasionally noticed, a drain-smell in the lower part of the house; but as the drains had been relaid with glazed pipes a few years ago, the smell was attributed to a slight defect in a watercloset. This circumstance, however, did not explain to me the occurrence of the fever in these four particular cases, out of a dozen persons inhabiting this house. Upon close inquiry, I found that these four individuals—two young ladies, who succumbed to the disease, and two servants, who have recovered—drank water almost exclusively taken from a well on the premises, while the other members of the family drank from a cistern of New River water, the latter being more ready at hand for their use, while the former was preferred, for its taste, by the young ladies. The two servants who suffered, being the attendants of these young ladies, had drunk the same water with them. My attention being thus drawn to the water-supply, the well was opened, and found to be empty; the water, it had been noticed, had been running short during the hot weather. In looking to the well we discovered—what was not before known to the occupants of the house—a large cesspool within a foot or two of the well.* The ground at this spot consists of sand lying on the plastic beds of the London clay. It seemed clear to me that the well-water had become contaminated by infiltration from this cesspool, and hence the source of the disease which proved so lamentably fatal.

I should add that I met with an isolated case of typhoid fever, in a house not far from the one already referred to, during the autumn of 1864, and that at the time I attributed this to defects in drainage; but I do not know whether there was a cesspool near the water-supply.

As bearing upon the possibility of the transmission of the poison of typhoid fever from sewage to water-supply, I beg leave to refer to a paper published in Beale's "Archives," vol. iv., in which I have given the details of an outbreak of this fever from which members of my own family were sufferers, and which I traced to contaminated water.

In all the preceding instances the disease did not spread. The same fact was observed in the case of a lad, aged thirteen, who had been sent home from a school in France. The typhoid type was well marked. There was no room to doubt the origin from sewage emanations in this instance.

During the present autumn I attended also a case of typhoid in a gentleman just returned from a Continental tour, and although a severe case, ending fatally, the disease did not spread to any other person, although the house in which he resided was in a very unfavourable position respecting its sanitary surroundings.

It is of course credible that in the first four preceding instances the contamination of the water-supply was not the sole exciting cause of the disease. It is possible that gaseous emanations from the sewers combined with the poison conveyed in the water to produce the disease; but the circumstances stated point so definitely to the former agency alone, and so strictly limited the operation of the fever poison, that it is not, I think, a transgression of strictly logical rules to regard these as standing in the relation of cause and effect.

Upper Holloway, Dec. 1865.

* This has since been filled up, and new drains laid.